Draft Environment Impact Statement for the Proposed New Buffalo Convention Center, Buffalo, Erie County, New York

Volume II
Appendices

March 2002

Lead Agency:

Erie County Department of Environment and Planning
95 Franklin Street
Buffalo, New York 14202

Prepared by:

ECOLOGY AND ENVIRONMENT, INC.
368 Pleasant View Drive
Lancaster, New York 14086

Date of Acceptance by Lead Agency: __March 1, 2002_

Deadline for Public Comments: __April 1, 2002________

A

New Buffalo Convention Center Draft Scoping Summary Report

New Buffalo Convention Center
Draft Scoping Summary Report

May 2001

Prepared for:

COUNTY OF ERIE DEPARTMENT
OF ENVIRONMENT AND PLANNING
10th Floor, Rath Building
95 Franklin Street
Buffalo, New York 14202

Table of Contents

Section | Page

1 Introduction and Notification 1-1

2 Summary of Public Scoping Comments 2-1
- 2.1 Open House Format 2-1
- 2.2 New Buffalo Convention Center Open House 2-2

Appendix

A Notice of Intent/Positive Declaration A-1

B Newspaper Display Notice B-1

C Open House Handouts C-1

D Open House Displays D-1

E Open House Photos E-1

F Greater Buffalo Convention and Visitors Bureau Handout F-1

G Citizens for Common Sense Handouts G-1

H New Buffalo Convention Center EIS Scoping Comments H-1

List of Tables

Table **Page**

1-1 Open House Attendance and Number of Public Scoping Statements........................ 1-2

2-1 Number of Attendees and Statements Received, Open House (as of April 24, 2001)... 2-3

2-2 Issues Identified During Scoping Process New Buffalo Convention Center EIS 2-3

List of Figures

Figure		Page
1-1	New Buffalo Convention Center EIS Site Alternatives	1-3

1 Introduction and Notification

On April 25, 2000, the County of Erie issued a Positive Declaration and Notice of Intent (NOI) to interested and involved agencies of its intention to prepare a draft environmental impact statement (EIS) for a new Buffalo Convention Center (see Appendix A). The notice stated that the County would be the lead agency for this Type I action under Part 617 of the implementing regulation pertaining to Article 8 (New York State Environmental Quality Review Act) of the New York State Environmental Conservation Law.

The NOI provided a description of the proposed action and identified the project as the construction of a new 400,000 gross square foot convention center (with a 125,000 square foot main exhibit hall) on an 11-acre site in downtown Buffalo, New York. The site is bounded by Main Street on the west, Huron Street on the north, Elm Street on the east, and Broadway on the south. Included in this action is the construction of a minimum 1,250-space parking facility within the boundaries of the site.

In addition, alternatives to the Mohawk Site were also presented. These alternatives included the following:

- Construction of a new convention center at the water front;
- Renovation/expansion of the existing convention center; and
- No-action alternative (see Figure 1-1).

The NOI summarized the proposed project's anticipated impact on community growth and character as well as impacts to land, aesthetic resources, historic and archaeological resources, and existing transportation systems.

A newspaper display notice announcing the County's intent to prepare an EIS and to hold a public scoping open house was published

in *The Buffalo News* on Sunday, March 25, 2001 (the Sunday preceding the scheduled open house). A copy of the display notice is included in Appendix B.

During the scoping process, the County invited participation of state and local agencies and other interested persons to identify the scope of issues and significant issues related to the proposed action. Agencies and other interested persons were encouraged to attend a public scoping open house and to provide written and oral comments.

The public scoping open house was held on Tuesday, March 27, 2001 at the Buffalo Convention Center on Franklin Street in downtown Buffalo, New York. In addition to comments received at the public scoping open house, the County received written statements through the close of the public scoping period, April 24, 2001. Pubic scoping comments were received during the comment period in various ways. The County received written comments during the scoping meeting and also by mail following the meeting. Comments were also provided through the County's project web site: www.bfloconventioncenter.ene.com. The number of attendees at the open house and the number of statements received throughout the scoping period are shown on Table 1-1.

Table 1-1 Open House Attendance and Number of Public Scoping Statements

Location	Number of Attendees	Number of Statements
Buffalo Convention Center	93	70

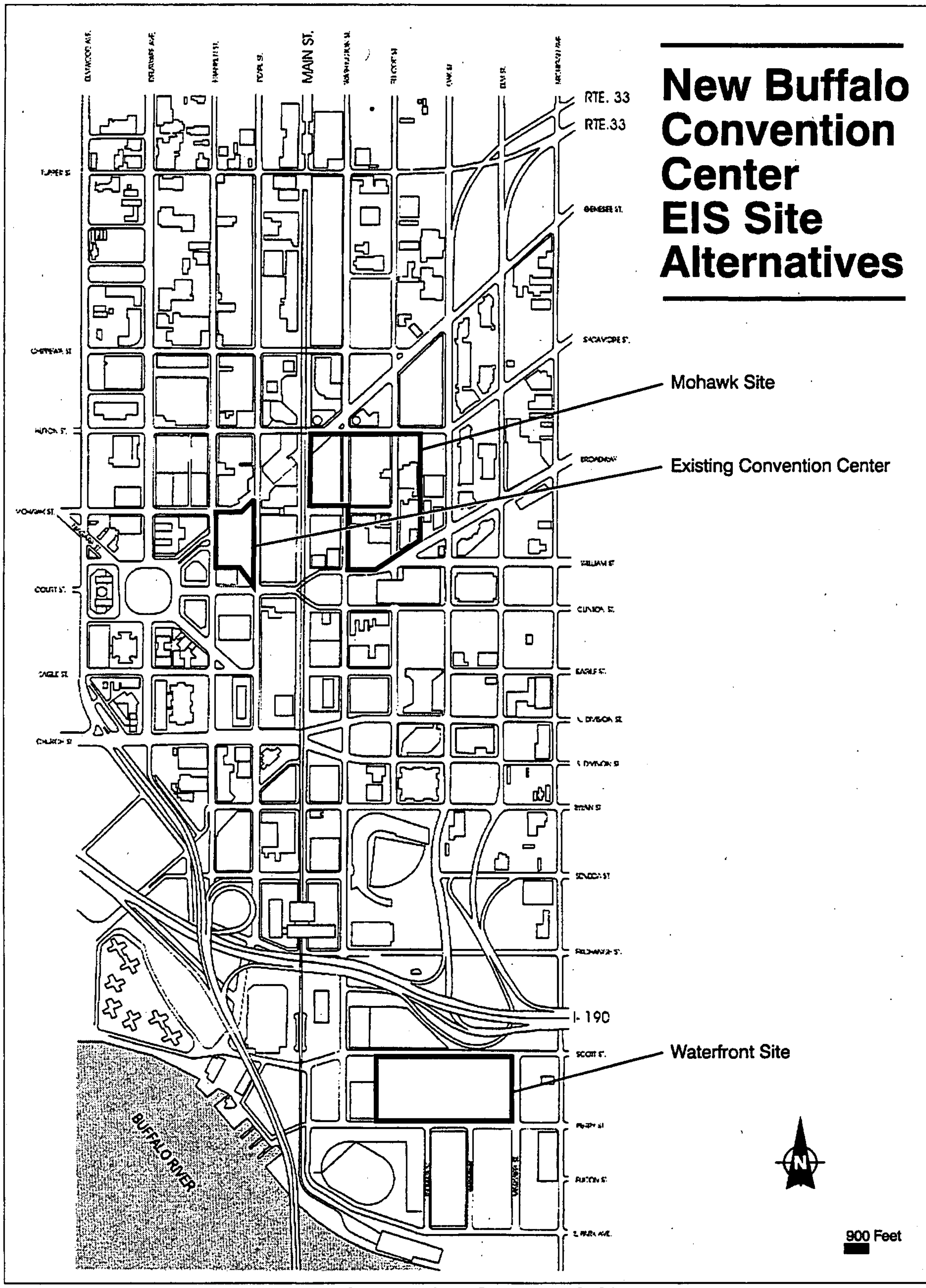


Figure 1-1 New Buffalo Convention Center EIS Site Alternatives

2 Summary of Public Scoping Comments

The following summarizes the general format of the open house and the issues that were identified by members of the public. Generally, these issues are derived from the written statements of concerned citizens, provided either at the open houses or mailed in during the scoping comment period.

2.1 Open House Format

The public scoping open house format was designed to provide interested persons with an opportunity to review information and ask detailed questions of project representatives in an open, one-on-one setting before formulating their concerns and comments. This format provided a variety of layered information sources to meet individual needs and allowed for maximum community participation.

The open house format was also designed to provide individuals in attendance with a continuous and logical flow of project information (see Appendix C) and to offer various ways to make comments. When attendees entered the open house, they were directed to a sign-in table where there were handouts that included:

- "Welcome to the New Buffalo Convention Center Scoping Meeting";
- "New Buffalo Convention Center Project Fact Sheet";
- "SEQR Process and the New Buffalo Convention Center"; and
- "New Buffalo Convention Center Project: Your Comments and Ideas."

The County presented information to attendees at five display booths titled "Proposed Action," "Public Involvement," "Alternatives," "EIS Topics," and "Green Design." (Reduced-size copies

of the posters at each display booth are included in Appendix D). EIS team members staffed each display booth and answered questions, provided meeting handouts, and encouraged, advised, and assisted participants on ways to provide comments.

Comment cards and comment boxes were available on tables throughout the meeting room, lap top computers were also available for electronically submitting comments to a public comments database. Attendees were also encouraged to visit the project web site (www.bfloconventioncenter.ene.com) to provide comments and feedback on the project. Selected photographs of the open house are included in Appendix E.

2.2 New Buffalo Convention Center Open House

The open house was held in Room 106 of the Buffalo Convention Center on Franklin Street in downtown Buffalo, New York. There were 93 individuals in attendance according to the sign-in sheets (see Table 2-1).

Local media coverage at the open house included reporters from *The Buffalo News*, WKBW-TV, and WGRZ-TV. Reporters interviewed Erie County Executive Joel Giambra, EIS team members, and several concerned citizens about the project.

Members of the Buffalo Convention and Visitors Bureau and citizens' organization called Citizens for Common Sense set up a table at the entrance to the room with poster displays and handouts. They distributed some informational material, including several fact sheets and newspaper articles (see Appendix F and G).

The County received 48 statements addressing the proposed action during the open house (see Table 2-1). The County also received 22 letters during the scoping comment period from residents through both the mail and the project web site (see Appendix H).

A summary of key issues is shown on Table 2-2. Key issues identified during the open house ranged from support/objection for specific site alternatives to overall economic impact of each site alternative to the purpose and need for a new convention center.

Table 2-1 Number of Attendees and Statements Received, Open House (as of April 24, 2001)

Attendees/Statements	Number
Attendees	**93**
Statements Received	
Open house	48
Web site	17
Mail-in	5
Total	**70**

Table 2-2 Issues Identified During Scoping Process New Buffalo Convention Center EIS

Issue	Number of Comments Received
Proposed Action	
Purpose and need for a new convention center	10
Support for new state-of-the-art convention center	3
Socioeconomics	
Job creation	5
Overall economic impact	9
Cost benefit analysis	5
Direct and indirect business development	5
Analysis of existing economic impact/activity of businesses currently operating within the Mohawk Site	4
Performance of opportunity cost analysis (evaluate alternative uses and impact of funding new convention center)	11
Calculate cost per job created/dollar of wages created	1
Business relocation at the Mohawk Site	6
Businesses lost at the Mohawk Site	6
Increased tourist activity	2
Analysis of existing convention business in Buffalo (i.e., number of conventions, conventioneers, money spent, direct and indirect economic impact)	4
Impact to adjacent residential neighborhoods	2
Accuracy of past projections from other cities with new centers as a comparison for Buffalo	3
In cities where convention attendance has increased, has a related increase in retail and other economic activity occurred?	3
Calculation of economic impact of a new convention center in terms of "new" money brought in by convention center (i.e., subtract income from previous uses for the sites)	1
Analysis of seasonal convention center use (How is the site used during slow months?)	1

Table 2-2 Issues Identified During Scoping Process New Buffalo Convention Center EIS

Issue	Number of Comments Received
Include analysis of most recent convention center studies on convention/trade show business trends	2
Alternatives	
Suitability/support of Mohawk Site	14
Suitability/support of Waterfront Site	10
Suitability/support of renovating/expanding existing convention center	18
Suitability/support for no-action alternative	5
Improve the existing convention center without expansion	2
Opposition to the Mohawk Site	6
Opposition to the Waterfront Site	1
Opposition to reuse/expansion of existing convention center	2
Opposition to construction of a convention center downtown	1
Opposition to construction of a new convention center	1
Consideration of a theatre district site alternative bounded by East Chippewa, East Tupper, and Franklin Streets	1
Consideration of a site adjacent to the airport	
Consideration of site bounded by Clinton/Elm/N. Division/Ellicott	1
Consideration of site bounded by Elmwood/Huron/Niagara	1
Thorough assessment of the disadvantages presented by each site must be done	1
Lehigh Valley Railroad property site alternative	1
Suitability of alternatives outside the Central Business District (SUNYAB land on Millersport Road in Amherst)	1
Support for a new convention center site in Niagara Falls	3
Environmental	
Impacts to natural environment	2
Traffic Patters and Parking	
Impacts to downtown street/traffic patterns	6
Adequate on-site parking needs/capacity	4
Adequate access for trucks, buses, cars, and public transportation	5
Impact to pedestrian flow	2
Utilization of light rail transit	1
Loss of existing parking spaces	2
Restoration of radial street pattern	2
Infrastructure	
Concern for structures to be demolished at the Mohawk Site	12
Infrastructure required to be built at Mohawk Site	2
Condition of existing infrastructure (buildings) at Mohawk Site	1
Demolish existing convention center	1

Table 2-2 Issues Identified During Scoping Process New Buffalo Convention Center EIS

Issue	Number of Comments Received
EIS Process	
Lack of adequate publication of scoping meeting	1
Adequate time for comment feedback	1
Importance of public involvement in EIS process	1
Planning/Land Use/Demographics	
New convention center should be part of comprehensive plan/strategy for revitalizing Buffalo	3
Include 2000 U.S. Census numbers in EIS analysis	1
Evaluation of new convention center locations as a part of a total neighbor-hood	1
Use of land adjacent to existing convention center	1
Impact to land available downtown housing	3
Use of waterfront as an asset	3
Proximity of convention center to other downtown amenities	2
Preservation and revitalization of "Electric District"	3
Evaluation of alternative uses for sites identified	7
Development where there is "critical mass"	2
Concern for how existing convention center will be reused	3
Consolidation of entertainment resources	1
Public investment of unneeded infrastructure that promotes sprawl	1
Review of floor plans and locations of other convention centers in pier cit-ies for reference	1
Urban Design	
Façade improvements on existing building (i.e., Pearl Street) to improve streetscape	4
Adaptive reuse of existing buildings	1
Impact of Mohawk Site alternative on urban fabric (i.e., tearing down old but valuable and historic buildings)	9
Support for green design	20
Design of new convention center	3
Mohawk Site "walls off" east side	1
Historic/Cultural Resource Structures	
Impact to Historic architecture/structures	4
Impact on historic Erie Canal terminals/other historic foundations at the Waterfront Site	1
Cultural resource impacts at Mohawk Site	1
Other	
Impact of weather on attracting conventions to Buffalo	1
Need for easy access to hotels versus adjacency to hotels	1
Use of vacant/underutilized land for new convention center site	1

**Table 2-2 Issues Identified During Scoping Process
New Buffalo Convention Center EIS**

Issue	Number of Comments Received
Convention center as a multi-use facility	4
Funding of associated new hotel	1
Private investment in new hotel	2
Plan for a new hotel to support larger conventions	2
Lack of downtown amenities to support a new convention center	1
Need for new rooms to support future conventions	1
Need for headquarters convention hotel	3
Purpose and need for new hotel to accompany convention center	1
Location of a new convention center in proximity to hotel	1
Lack of follow through on previous consultant recommendations	2
Trends in convention center growth	1
Energy wastage in demolition of existing structures	1
Concern over increased rodent problems resulting from demolition	1
Total	**295**

A

Notice of Intent/ Positive Declaration

STATE ENVIRONMENTAL QUALITY REVIEW
<u>POSITIVE DECLARATION</u>
DETERMINATION OF SIGNIFICANCE
NOTICE OF INTENT TO PREPARE A DRAFT EIS

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the NYS Environmental Conservation Law.

Date: April 25, 2000

TO: **INVOLVED AGENCIES:**

Commissioner - NYSDEC, Albany
NYS Department of Environmental Conservation, Region 9
Erie County Legislature
Hon. Joel A. Giambra, Erie County Executive
Erie County Department of Public Works
Erie County Department of Environment and Planning
Erie County Industrial Development Agency
Hon. Anthony Masiello, Mayor - City of Buffalo
Buffalo Common Council
Buffalo Urban Renewal Agency
Buffalo Department of Public Works
Buffalo Department of Water
Buffalo Sewer Authority
Buffalo Department of Community Development
Buffalo Planning Board
Buffalo Parking Board
Empire State Development Corporation
New York State Office of Parks, Recreation and Historic Preservation
New York State Department of Transportation
NYS Energy, Research and Development Corp.
Niagara Frontier Transportation Authority
New York Power Authority

INTERESTED AGENCIES:

Buffalo Convention and Visitors Bureau
Buffalo Place, Inc.
Convention Center Management Corporation
Bell Atlantic
Niagara Mohawk
Buffalo Niagara Partnership
Buffalo Economic Renaissance Corporation
Buffalo Niagara Enterprise
Erie County Preservation Coalition
Working for Downtown
New Millennium Group
Citizens for Common Sense
Erie County Environmental Management Council
Buffalo Environmental Management Council

LEAD AGENCY: Erie County Department of Public Works

NAME OF ACTION: New Buffalo Convention Center

LOCATION: Main Street, between Huron Street and Broadway
City of Buffalo, Erie County

SEQR STATUS: Type I

PROJECT NUMBER: C617-00-193

DESCRIPTION OF ACTION:

Construction of a new 400,000 gross square foot convention center (with a 125,000 square foot main exhibit hall) on an 11-acre site in downtown Buffalo, New York. The site is generally bounded by Main Street on the west, Huron Street on the north, Elm Street on the east, and Broadway on the south. Included in the action is the construction of a minimum 1250-space parking facility within the boundaries of the site.

Reasons for Supporting this Determination:

Impact on Land

The proposed action will require the acquisition of up to 64 parcels, most of which contain buildings varying from 1 to 6 stories in height. Demolition of these buildings would be required.

In addition, an existing 600-car parking ramp would be demolished, and a minimum of 1250 parking spaces would be incorporated into the convention center building program.

Impact on Aesthetic Resources

The proposed action would require the demolition of numerous existing buildings, and the construction of a contemporary structure. Existing streetscapes would be altered.

Impact on Historic and Archaeological Resources

The proposed action is near Shea's Buffalo Theater, a building listed on the National Register of Historic Places. It is also near several sites and districts eligible for listing on the Register, including the Niagara Mohawk Building, Buffalo Savings Bank, Bergers Building, Brisbane Building, Lafayette Hotel, Soldiers and Sailors Monument in Lafayette Square, Market Arcade and Theater Historic District.

In addition, downtown Buffalo in general has the potential to contain potentially-significant archaeological and cultural resources.

Impact on Transportation

The proposed action includes the restoration of vehicular traffic on Mohawk Street between Pearl and Washington Streets, and the closing of Mohawk Street between Washington and Ellicott Streets.

Impact on Community Growth and Character

The proposed action is anticipated to result in the direct creation of 100 full-time jobs, and is expected to indirectly impact job creation in hotel, restaurant, retail, and tourist-service sectors.

Occupants of existing buildings to be acquired and demolished will be affected by the proposed action. Relocation of these occupants will be required. Attempts will be made to relocate these occupants in downtown Buffalo as much as possible.

This decision has been determined by the Erie County Department of Public Works on April 25, 2000. All facts and findings of this review are on file at the Department of Environment and Planning, 10th Floor, Rath Building, 95 Franklin Street, Buffalo, NY 14202. These files may be examined by the public between the hours of 9:30 a.m. and 4:30 p.m. of any normal operating day.

Written comments may be submitted to the Review Coordinator at the same address.

Maria Lehman
Commissioner, Department of
Public Works

For further information contact:
Michael J. Krasner, AICP, Senior Planner - (716) 858-6086

mjk143\wp

Convention Center Program and Essential Characteristics

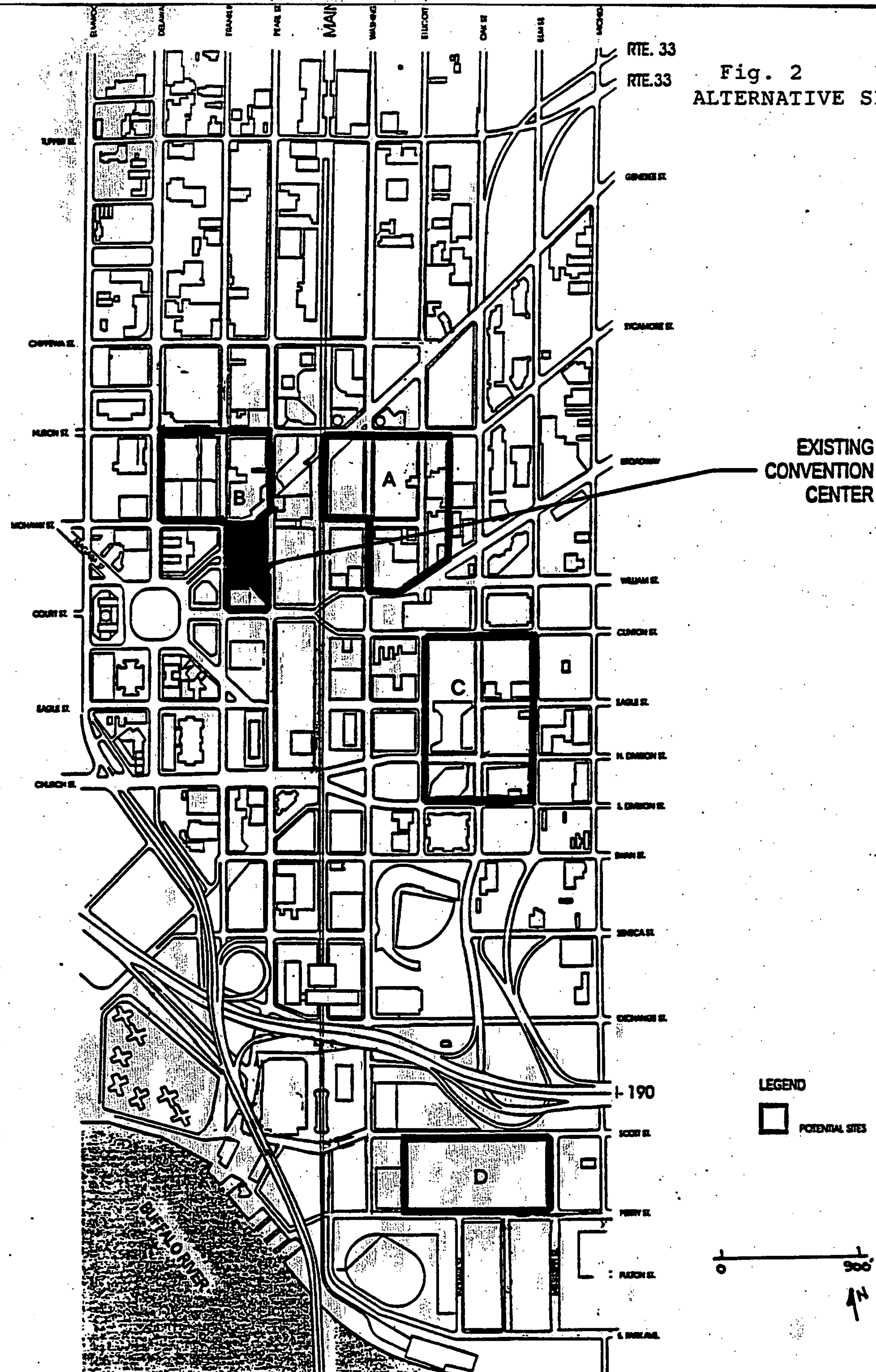
Having the right "convention center package" is essential in an increasingly competitive convention, trade, and consumer show and meetings market.

Program	Total Range
• Exhibition Halls	125,000 SF
• Meeting Space	25,000 - 30,000 SF
• Ballroom Space	25,000 - 30,000 SF
• Public Circulation / Public Services	67,800 - 80,500 SF
• Service Support	85,150 - 98,900 SF
• Food Service	14,800 - 16,750 SF
• Administration	5,900 - 7,000 SF
Total Gross Square Footage	348,150 - 388,150 SF
* Potential for Expansion	75,000 - 150,000 SF

Characteristics

- Easy access to regional highways and airport.
- Ample secure parking nearby (minimum 500 spaces).
- Connected to "headquarters" hotel.
- Proximity to other nearby hotels.
- Flexibility in exhibition hall and meeting room size.
- Latest technology.
- Highly functional and efficient building.
- Efficient loading / service area with nearby marshaling area.
- Restrictive building in an attractive / animated setting.
- Excellent amenities and services within and nearby.

Fig. 2
ALTERNATIVE SITES



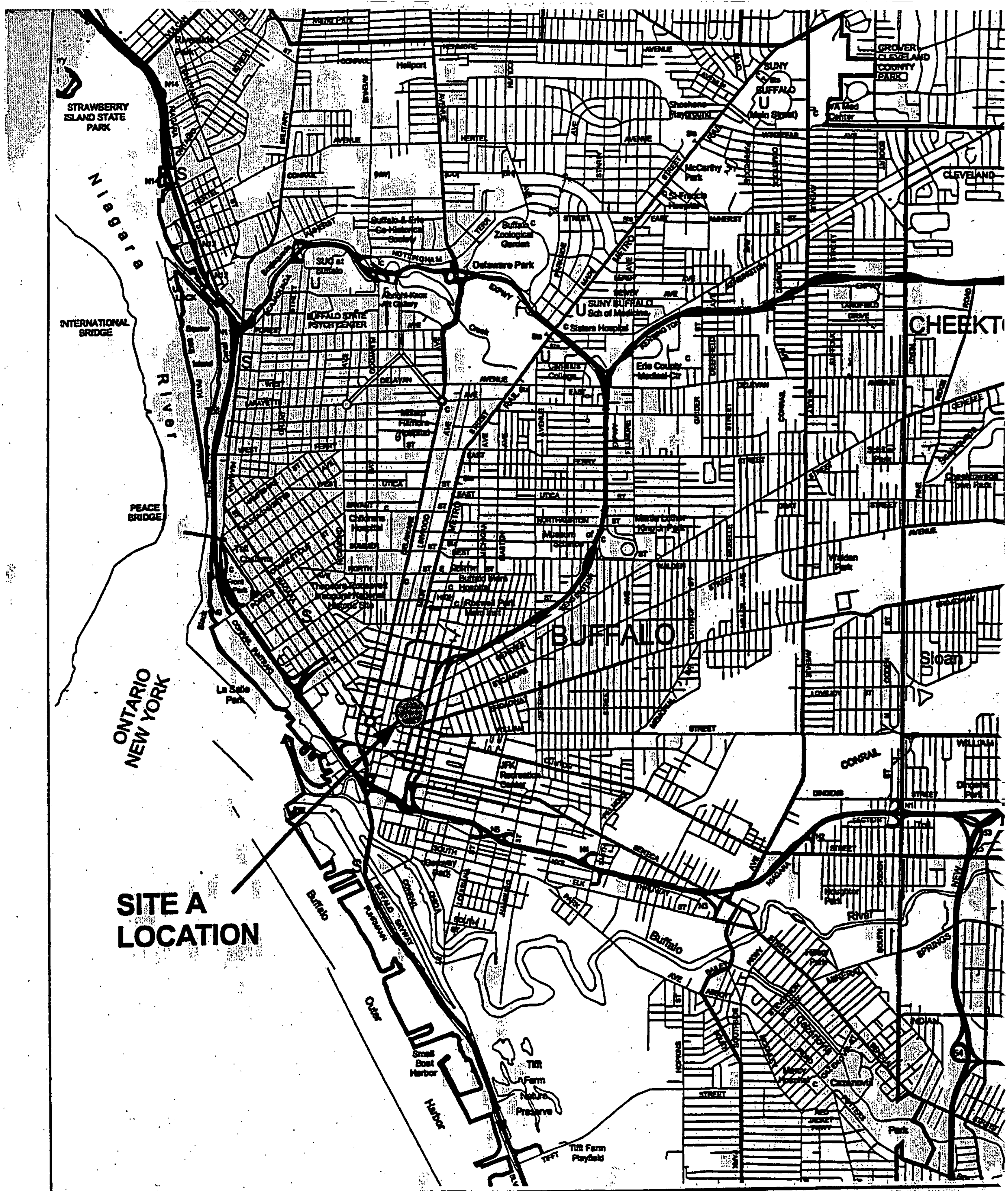


Figure 1

GENERAL LOCATION

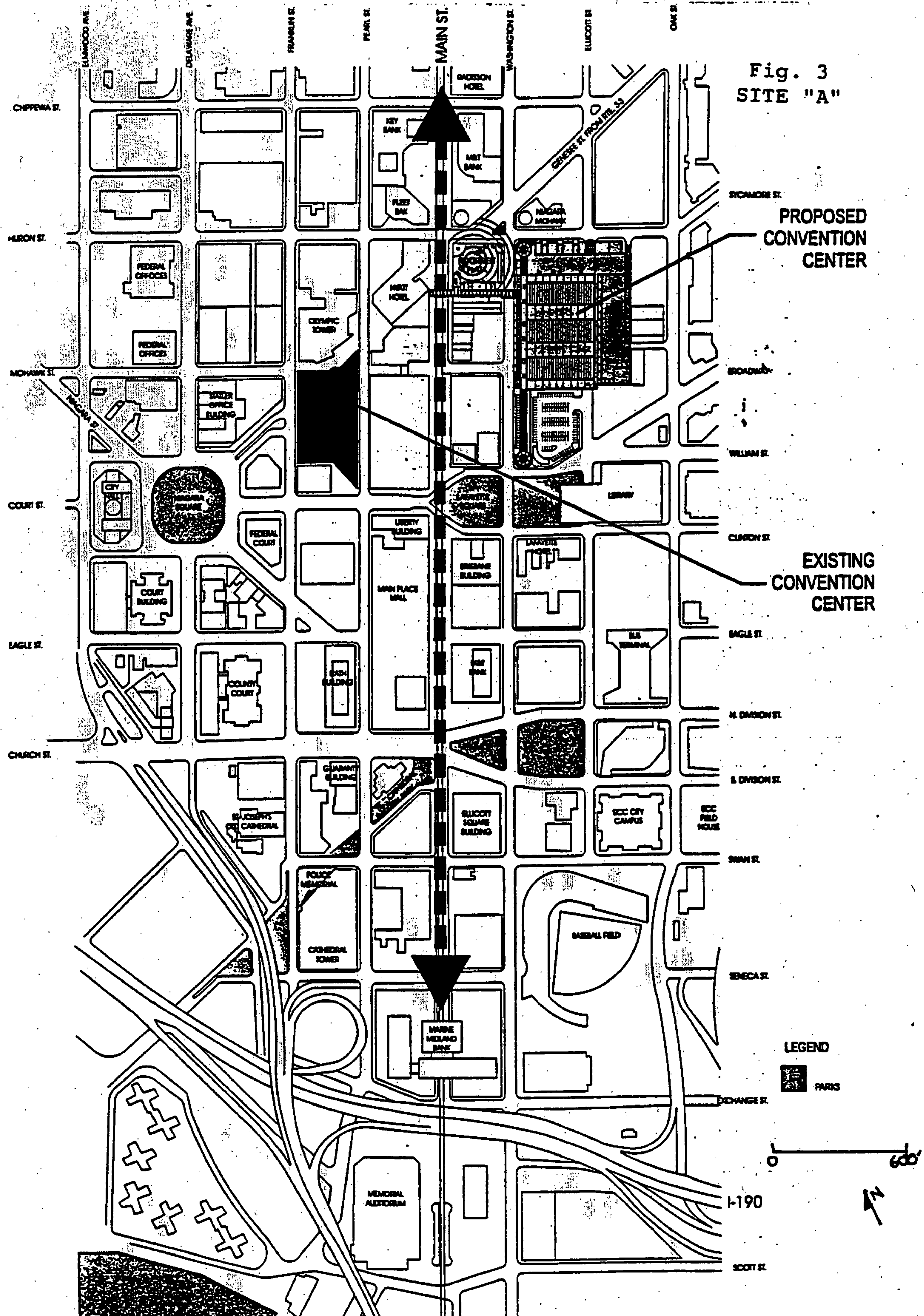
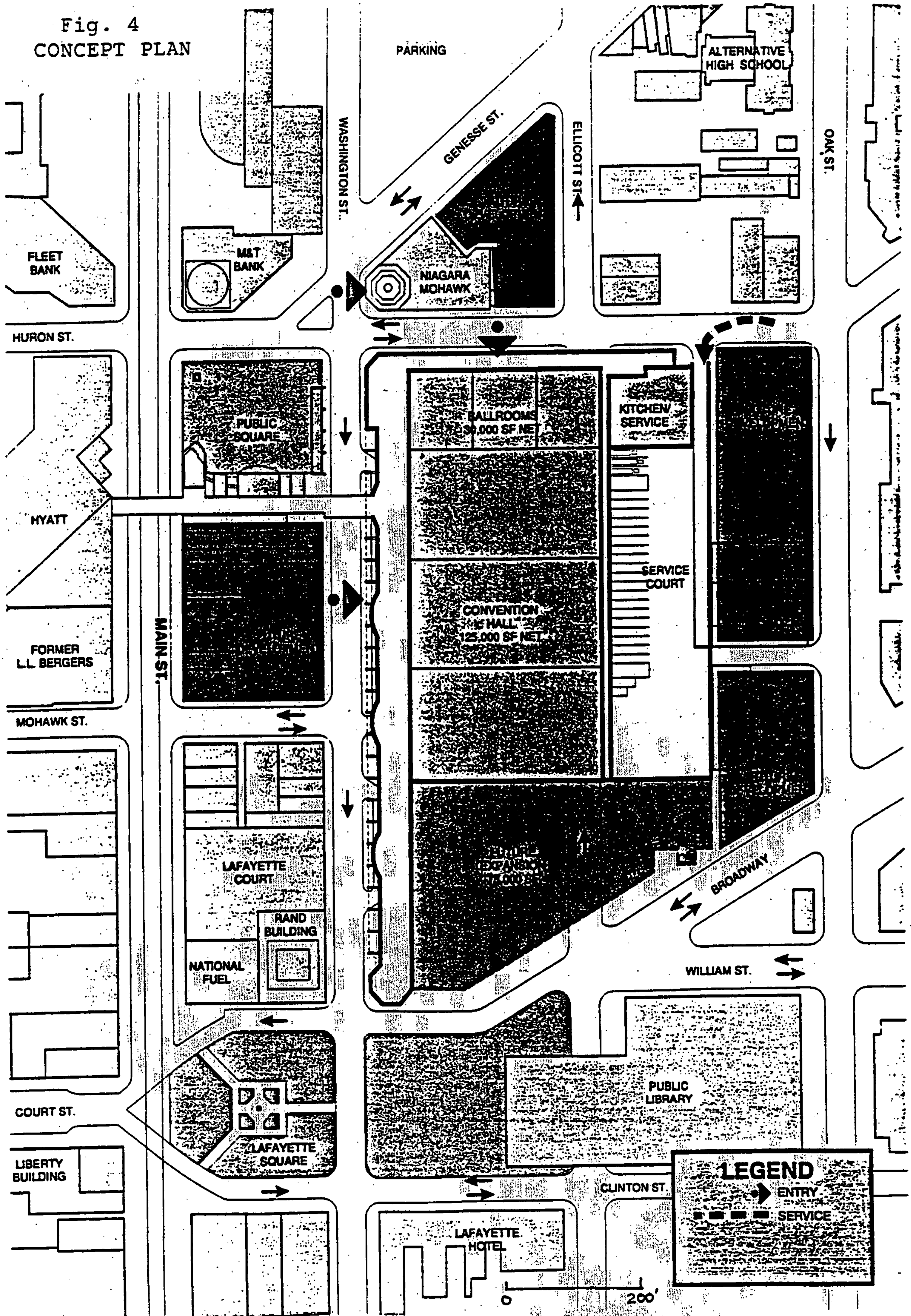

ELMWOOD AVE.
DELAWARE AVE.
FRANKLIN ST.
PEARL ST.
MAIN ST.
WASHINGTON ST.
ELLICOTT ST.
OAK ST.
CHIPPEWA ST.
HURON ST.
MOHAWK ST.
COURT ST.
EAGLE ST.
CHURCH ST.
SYCAMORE ST.
BROADWAY
WILLIAM ST.
CLINTON ST.
N. DIVISION ST.
S. DIVISION ST.
SWAN ST.
SENECA ST.
EXCHANGE ST.
SCOTT ST.
PROPOSED CONVENTION CENTER
EXISTING CONVENTION CENTER
LIBRARY
MAIN PLACE MALL
OLYMPIC TOWER
CATHEDRAL TOWER
BASEBALL FIELD
MEMORIAL AUDITORIUM
MARINE MIDLAND BANK
LEGEND
PARKS
0
600'
I-190
N

Fig. 3
SITE "A"

Fig. 4
CONCEPT PLAN



B

Newspaper Display Notice

PUBLIC INFORMATION/SCOPING SESSION
NEW BUFFALO CONVENTION CENTER

The County of Erie is considering constructing a 400,000 to 425,000-gross-square foot convention center with a 125,000 square-foot exhibit hall, and a minimum 1,250-space parking facility. Erie County will prepare an Environmental Impact Statement (EIS) to evaluate the environmental effects of this proposed action and of several alternatives to this proposed action.

The preferred site location for construction of a new Convention Center is the "Mohawk Site," an 11-acre site in downtown Buffalo, New York. The site is generally bounded by Main Street on the west, Huron on the north, Elm Street on the east, and Broadway on the south. The alternatives under consideration include:

★ **New Construction Waterfront Site Alternative**
Construction of a new convention center on a 9.4-acre site located behind the HSBC Atrium building, generally bounded by Scott Street on the north, Perry Street on the south, Mississippi Street on the east, and Washington Street on the west.

★ **Expansion/Renovation of the Existing Convention Center Alternative**
The existing center is bounded by Court Street on the south, Franklin Street on the west, Mohawk Street on the north, and Pearl Street on the east. An expansion would likely extend across Pearl Street and require the potential acquisition of properties on the west side of Main Street between Mohawk and Court Streets.

★ **No-Action Alternative**
The County will also assess the no-action alternative. This alternative will measure the impacts associated with neither constructing a new convention nor renovating the existing center.

The proposed action at the "preferred site" will require the acquisition of up to 64 parcels of land, most of which contain buildings varying from one to six stories in height. Demolition of these buildings would be required. In addition, an existing 600-car parking ramp would be demolished, and a minimum of 1,250 parking spaces would be incorporated into the convention center building plan.

Erie County is the Lead Agency responsible for preparation and review of the EIS. Agencies and the public are encouraged and invited to attend a Public Scoping Meeting for identifying issues to be addressed in the EIS. The Public Scoping Session will be held:

Date: Tuesday, March 27, 2001
Time: 12 noon - 8 PM
Location: Buffalo Convention Center
Convention Center Plaza
Franklin and Court Streets
Buffalo, NY 14202

For additional information, please visit: **www.bfloconventioncenter.ene.com**

02:001288_EC02_01/Ad.cdr-3/14/01-GRA

C Open House Handouts

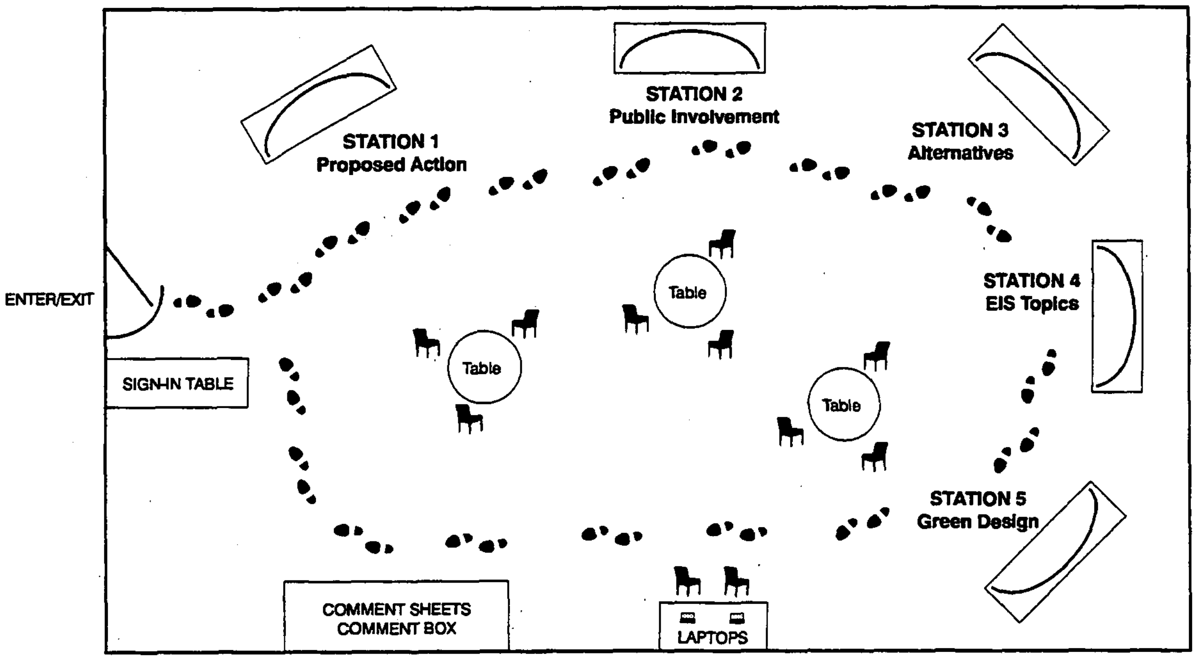
WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site.** In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?
What topics are key to the community?



Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202

NEW BUFFALO CONVENTION CENTER PROJECT

MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   ☐ YES ☐ NO

2. Did you get the information you needed to formulate questions/comments?

   ☐ YES ☐ NO

3. Did the people at the displays respond to your questions?

   ☐ YES ☐ NO

4. Did you provide comments?

   ☐ YES ☐ NO

5. If yes, which format did you use?

   ☐ Comment sheets
   ☐ Verbal
   ☐ Laptop computer

6. Did you like the open house format?

   ☐ YES ☐ NO

7. Any additional comments?

   ____
   ____
   ____
   ____
   ____
   ____

8. Would you like to be put on the mailing list? if yes, please provide:

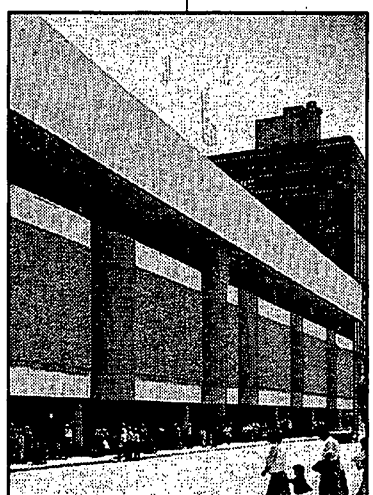
   Name ______________________________
   Address ______________________________
   ____
   ____
   Email ______________________________

02:001288_EC02_01/meeting_feedback.CDR-3/23/01-GRA

NEW BUFFALO CONVENTION CENTER PROJECT FACTSHEET

Introduction

The County of Erie, as lead agency, is preparing an Environmental Impact Statement (EIS) to evaluate the environmental, economic, and social impacts of the New Buffalo Convention Center Project. The EIS will be prepared in accordance with the requirements of the State Environmental Quality Review (SEQR) Act and focus on the impacts of the construction of a new convention center. Currently the preferred location for the new convention center is known as the Mohawk Site. It is an 11-acre site in downtown Buffalo, New York, generally bounded by Main Street on the west, Huron Street on the north, Elm Street on the east, and Broadway on the south.



Background

Erie County owns and operates the existing Buffalo Convention Center on Franklin Street, a 180,000 square foot two-story building with a 63,000 square foot main exhibition floor on the upper level. It has been determined that the existing convention center is no longer adequate and cannot competitively meet the area's present and future convention needs. Exhibition floor size is limited, there is no on-site parking within the existing center, and the closest hotel is the 395-room Hyatt Regency, which is linked to the convention center by a second-level pedestrian bridge. In order to remain competitive with other cities in attracting high-quality conventions, enlargement and improvement of the existing convention center or construction of a new convention center needs to occur.

Proposed Project Description

The County of Erie is preparing an EIS to evaluate the construction of a 400,000 to 425,000 gross square foot convention center with a 125,000 square foot main exhibit hall, as well as construction of a minimum 1,250-space parking facility. Also included in the EIS will be an evaluation of the potential to accommodate a "headquarters-quality" hotel within or adjacent to the project site.

Project Site and Alternatives

Through a series of studies evaluating and ranking sites in downtown Buffalo, the County has determined three project sites will initially be evaluated in the EIS. They include:

Mohawk Site

The Mohawk Site is currently the preferred location for construction of a new convention center. It is an 11-acre site in downtown Buffalo bounded by Main Street on the west, Huron Street on the north, Elm Street on the east, and Broadway on the south.

Waterfront Site

The Waterfront Site is a 9.4-acre site located behind the HSBC Atrium Building and is generally bounded by Scott Street on north, Mississippi Street on the south, and Washington Street on the west.

Expansion/Renovation of the Existing Convention Center

The existing convention center is bounded by Court Street on the south, Franklin Street on the west, Mohawk Street on the north, and Pearl Street on the east.

No Action

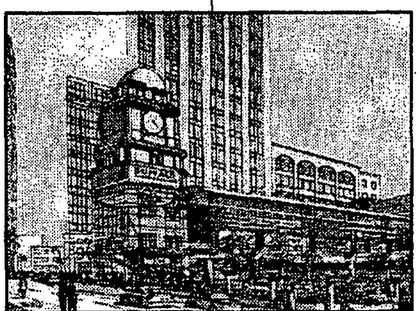
The County will also assess the no-action alternative. This alternative will measure the impacts of not constructing a new convention center or renovating the existing center.

What is an EIS and Why Prepare One?

An EIS is a detailed study of the environmental consequences of a major action. A typical EIS includes a description of the following:

- Purpose and Need for Action
- Alternatives to Be Evaluated
- Affected Environment
- Environmental Consequences and Mitigation
- Permits and Approvals

The State Environmental Quality Review (SEQR) Act requires that an EIS be prepared when an agency proposes a plan or project that could impact the environment in a significant way or that is considered controversial.



In the EIS, the County must consider several alternatives for implementing proposed plan and present the environmental consequences of each alternative. When preparing an EIS, the agency must also invite review and comment from other federal, state, and local agencies and the public.

What Will Be Evaluated in the EIS

At a minimum, the EIS for the New Buffalo Convention Center will evaluate the following major impact areas:

Social and Economic Issues
What will the overall economic impact of a new convention center be on the City and region? How much will it cost? How much money will it bring in? How many jobs will be created?

Urban Design and Aesthetic Resources
Will the construction of the facility preclude other potential commercial or residential development? What buildings would be displaced or relocated? What will the new Convention Center look like? Will the design be consistent with other buildings downtown? What will be the style of design?

Cultural, Historic, and Archaeological Resources
Will the construction of a new Convention Center impact any significant historic or architectural resources in the vicinity of the project alternatives?

Transportation
Will existing street patterns change? How much additional traffic will be generated? How will existing parking be impacted?

Reuse Options for the Existing Convention Center
If a new Convention Center is built, what are the options for reusing the old Center. What are the costs associated with each reuse option? Should the old site be demolished?

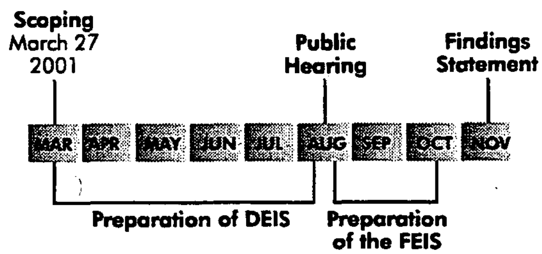
Public Participation

SEQR provides opportunities for public involvement at key stages throughout the EIS process, beginning with tonight's Open House. Following tonight's meeting, preparation of the Draft EIS (DEIS) will begin. The DEIS will take approximately five to six months to complete and will be made available to the public and government agencies for review and comment.

A formal public hearing will then be scheduled to establish a review period to give individuals an opportunity to present their comments on the DEIS. Public and agency comments will be addressed in the final EIS. In addition, the county will maintain a website at www.bfloconventioncenter.ene.com for access to public information and opportunities to comment.

Project Schedule

The anticipated EIS Project Schedule is as follows:



Questions concerning SEQR and/or written comments on the scope of the EIS should be directed to the following address:

Michael Krasner, AICP, Senior Planner
County of Erie
Department of Environment and Planning
10th Floor, Rath Building
95 Franklin Street
Buffalo, NY 14202

Public Input

THE DRAFT EIS IS MADE AVAILABLE FOR PUBLIC REVIEW FOR A MINIMUM OF 45 DAYS

Federal, state, and local agencies, as well as interested members of the public, are invited to provide comments on the Draft EIS. The County of Erie will hold a public hearing to receive comments from the public. An announcement of the public hearing is usually published with the NOC of the Draft EIS. Reviewing agencies and members of the public may also provide written input. Public comments will also be received through the web site at www.bfloconventioncenter.ene.com.

Final EIS

THE FINAL EIS DOCUMENTS THE COMMENTS RECEIVED ON THE DRAFT EIS, AND INCLUDES A RESPONSE TO ALL RELEVANT COMMENTS

Responses may include modifying or developing new alternatives to the proposed action; supplementing, improving, or modifying the analyses; and factual corrections.

Findings Statement

THE FORMAL FINDINGS REACHED ON THE PROPOSED ACTION BY ERIE COUNTY, PUBLISHED A MINIMUM OF 30 DAYS AFTER THE NOC OF THE FINAL EIS

The Findings Statement will be published in the Buffalo News, and copies will be provided to appropriate agencies, organizations, and individuals. The issue of a Findings Statement completes the EIS process.

PUBLIC PARTICIPATION

SEQR provides opportunities for public involvement during the EIS process. At the scoping meeting, the public is requested to provide input into the scope of issues to be addressed in the EIS. Issues of concern should be stated during the scoping meeting or provided in writing during the public comment period. Comments should clearly describe specific issues or topics that an individual believes the EIS should address.

After the draft EIS is prepared, it will be made available for public and government agency review. The public will be requested to review the EIS and provide comments on the study in writing or during public hearings. The date and time of the public hearing will be announced in the *Buffalo News* and *Business First*. The County of Erie will consider the comments and address them in the Final EIS, which will also be made available to the public. When the County has reached a final decision on the proposed action, it will prepare a Findings Statement, which will be published in local newspapers.

Please regularly visit the project website, www.bfloconventioncenter.ene.com, for updated project information, available reports, and provide your comments.

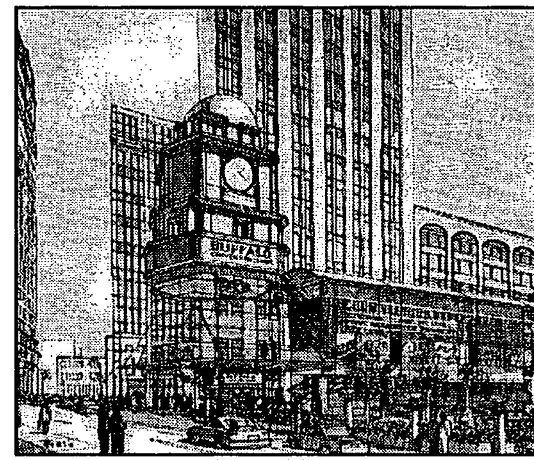
FOR FURTHER INFORMATION

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202
(716) 858-6086

THE SEQR PROCESS

AND THE NEW BUFFALO CONVENTION CENTER

The NEW YORK STATE ENVIRONMENTAL QUALITY REVIEW ACT of 1978 (SEQR) established an environmental review process for actions that are directly undertaken, funded, or approved by local, regional, and state agencies.



(Conceptual illustration only - actual design has not been determined)

SEQR requires a systematic, interdisciplinary approach to environmental review to allow for possible modifications to the proposed action to avoid impacts on the environment. Coordination and review of the SEQR process is the responsibility of the lead agency, which is the government entity directly responsible for the implementation, permitting, and/or funding of the proposed project.

The primary tool of the SEQR process is the ENVIRONMENTAL IMPACT STATEMENT (EIS). If it is determined that a proposed action may have a significant impact on the environment, an EIS is prepared to explore ways to mitigate environmental impacts or to identify and review more acceptable alternatives.

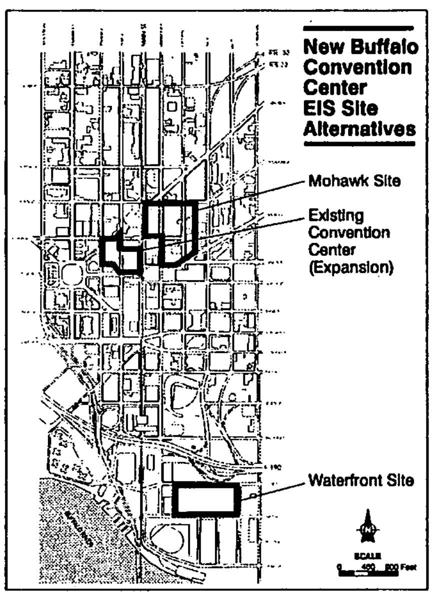
The County of Erie (the County) was designated as lead agency and has authorized the preparation of an EIS. The County has undertaken responsibility for coordinating review of the project and for ensuring that the environmental considerations of SEQR are included in project planning and the decision-making process.

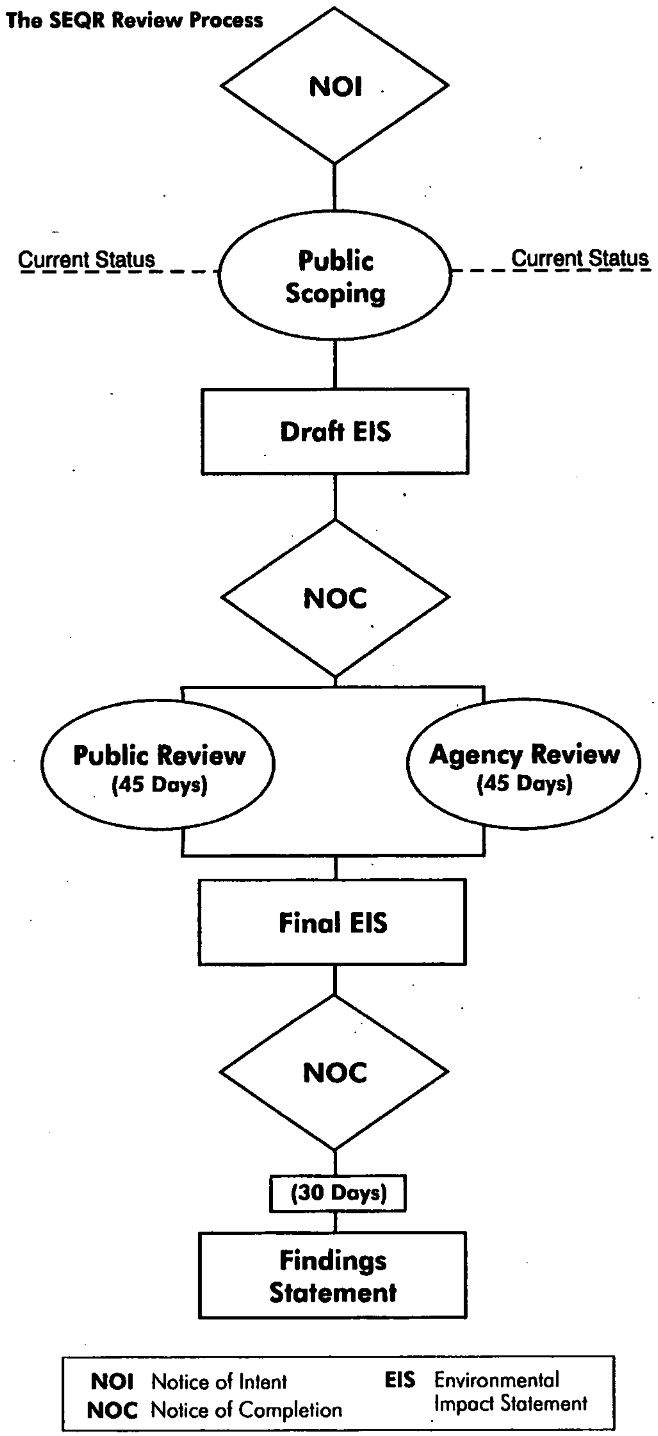
ENVIRONMENTAL REVIEW PROCESS

Notice of Intent (NOI) to Prepare an EIS

A REQUIRED NOTICE THAT ANNOUNCES THE COUNTY'S INTENT TO PREPARE A EIS

The NOI formally opens the public scoping process. The NOI was published in the ENVIRONMENTAL NOTICE BULLETIN (ENB) and in two local newspapers two weeks prior to the scoping meeting.





Scoping

AN EARLY AND OPEN PROCESS FOR DETERMINING THE SCOPE OF ISSUES AND IDENTIFYING THE SIGNIFICANT ISSUES RELATED TO A PROPOSED ACTION

Federal, state, and local agencies and members of the public are encouraged to provide input. Public Scoping meetings are often arranged to provide an opportunity for members of the public to comment on the issues that need to be addressed in the EIS. Scoping is generally conducted over a period of 30 to 60 days.

Draft EIS

THE DRAFT REPORT THAT DOCUMENTS THE COMPLETE AND COMPREHENSIVE ANALYSIS OF THE ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION

The draft EIS includes a description of the proposed action and the purpose and need for the proposed action; the criteria for determining the range of reasonable alternatives for implementing the proposed action; the existing environmental conditions where the proposed action would take place; and the environmental consequences of the proposed action. The Draft EIS may be supported by various environmental studies and analyses.

Notice of Completion (NOC)

A FORMAL NOTICE PLACED IN THE ENVIRONMENTAL NOTICE BULLETIN BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION THAT A DRAFT EIS OR A FINAL EIS IS AVAILABLE FOR REVIEW

The County also publishes an NOC in local newspapers in the area of the proposed action.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): ______________________

Agency/Organization: ______________________

Address: ______________________

____

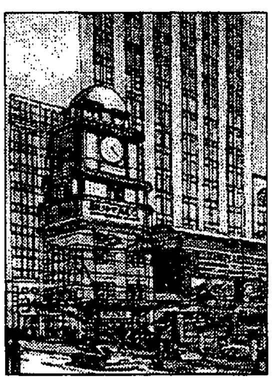
____

Email: ______________________

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

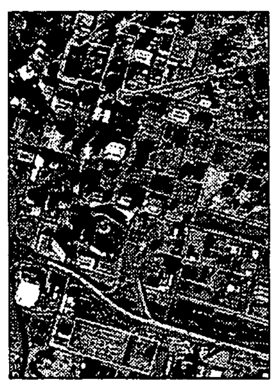
Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments: ______________________

▪ ALTERNATIVES



Comments: ______________________

■ DEVELOPMENT OBJECTIVES

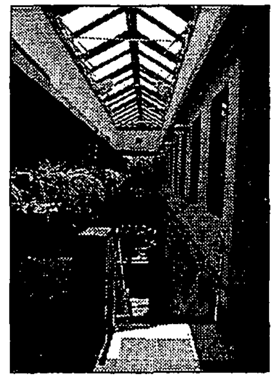
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:



Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

02:001288_EC02_01/comments-ideas.CDR 3/13/01 GRA

D

Open House Displays

E

Open House Photos

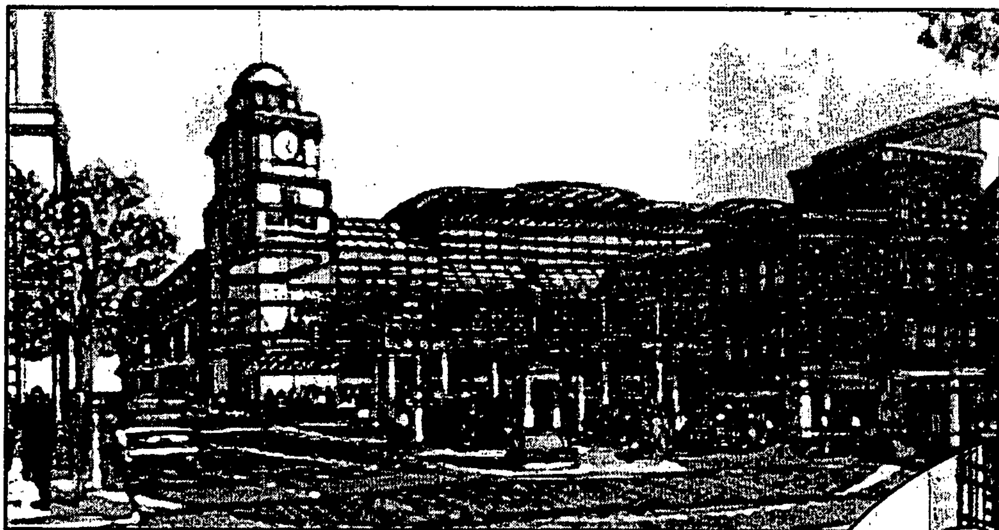
New Buffalo Convention Center Scoping Meeting

March 27, 2001
Buffalo Convention Center
Buffalo, NY

New Buffalo Convention Center Scoping Meeting
March 27, 2001
Buffalo Convention Center
Buffalo, NY

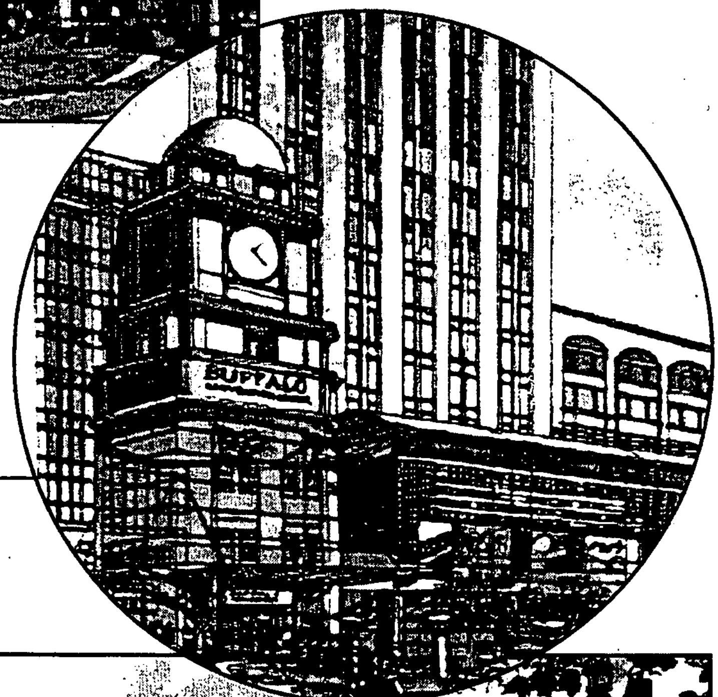
F

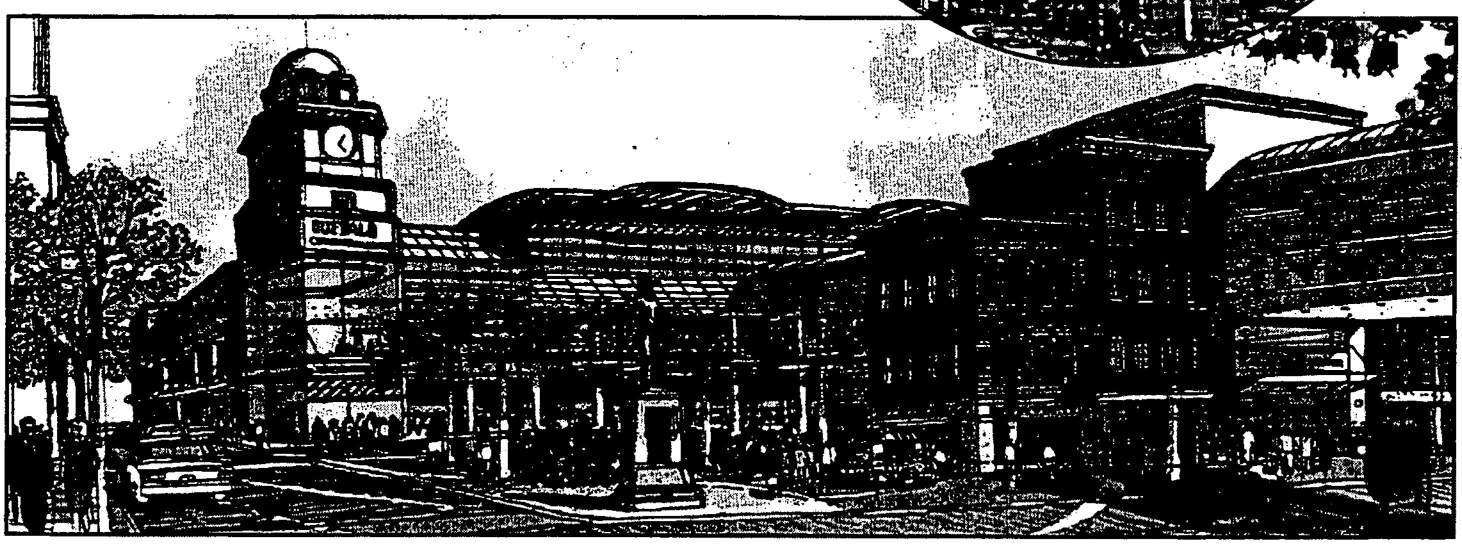
Greater Buffalo Convention and Visitors Bureau Handout



The Case for a New Buffalo Convention Center

A Key to Buffalo's Economic Growth





GREATER BUFFALO
CONVENTION &
VISITORS BUREAU™

Time is of the essence.

A new convention center is perhaps the single most immediate opportunity to bring "new money" into our community.

Convention centers establish destinations for visitors from outside the area, visitors who spend significant amounts of money during their stay. The significant impact of this activity on Western New York's economy is the primary rationale for public sector involvement in the development of a new, larger convention center.

The KPMG Economic and Fiscal Impact Study (February 2000) specifically identified the following benefits:

Economic Impact... Visitors coming to Western New York through convention-related activities will **generate an annual economic impact in excess of $112 million**.

Jobs... The new convention center will generate in excess of **1,200 new permanent jobs and over 1,500 construction-related jobs** in Western New York. The permanent jobs being created would be largely service sector jobs. According to a study done by the Travel Industry of America (TIA), service sector earnings per hour are now more than the average for all private industry sectors.

Fiscal Impact... The convention center will generate **$13.6 million in annual tax revenues** from visitors to the area, nearly $9 million of which is incremental to the new facility.

Based on the total investment of $150.7 million in a new convention center and an "annual return" on that investment of $112 million in economic impact, the community will realize a payback in less than 2 years.

Buffalo has fallen behind its peer cities with respect to its ability to attract conventions and to generate the economic benefits of the burgeoning convention industry.

Direct spending on conventions and trade shows throughout the United States in 1999 was in excess of **$100 billion.** To capture their share of the economic rewards generated by this $100 billion industry, many cities across North America have built new facilities or expanded their convention centers. These cities recognize that the positive economic impact generated by an appropriately designed and marketed convention center more than justifies the investment to build the facility.

Buffalo now ranks last among its national peers in the amount of prime exhibition space its center offers – compared to cities such as Columbus, Indianapolis, Providence, Milwaukee, Cleveland and Pittsburgh. Furthermore, the quality of the existing facility in Buffalo does not favorably compare to most of the state-of-the-art facilities offered in other cities.

While Buffalo's competitors in other cities have improved or expanded their convention centers in recent years, Buffalo has not. As a result, Buffalo has an extremely limited ability to attract the types of events and conventions that bring large numbers of people into the community and **infuse new money into our economy.**

Western New York's share of the convention industry will eventually deteriorate without a new convention center.

The $20 million annual economic impact of Buffalo's current convention center will be at risk without a new facility, most notably for these reasons:

- If Buffalo decides not to build a new convention center, this community will continue to lose market share because our competitive cities have larger, state-of-the-art facilities.
- As it ages, operating costs for the current convention center will continue to escalate. The increased maintenance will require additional operating subsidies as upkeep costs rise.
- The size and configuration of Buffalo's current center will increasingly position it to compete only for small-scale conventions willing to overlook our obsolete facility.

With a larger convention center, Buffalo will successfully compete in the national market.

In 1996, C.H. Johnson Consulting Inc. was engaged by the Western New York community (private and public sectors) to perform a market and feasibility study of Buffalo's convention facilities. The consulting team surveyed a representative sample of trade show, convention and meeting professionals who have sponsored or planned events in Buffalo or other cities. The survey was designed to gauge the interest of meeting professionals in Buffalo as a location for their event(s). These professionals were selected to represent a cross-section of organizations and industries that hold events.

Market research yielded the following observations about Western New York as a convention and trade show destination:

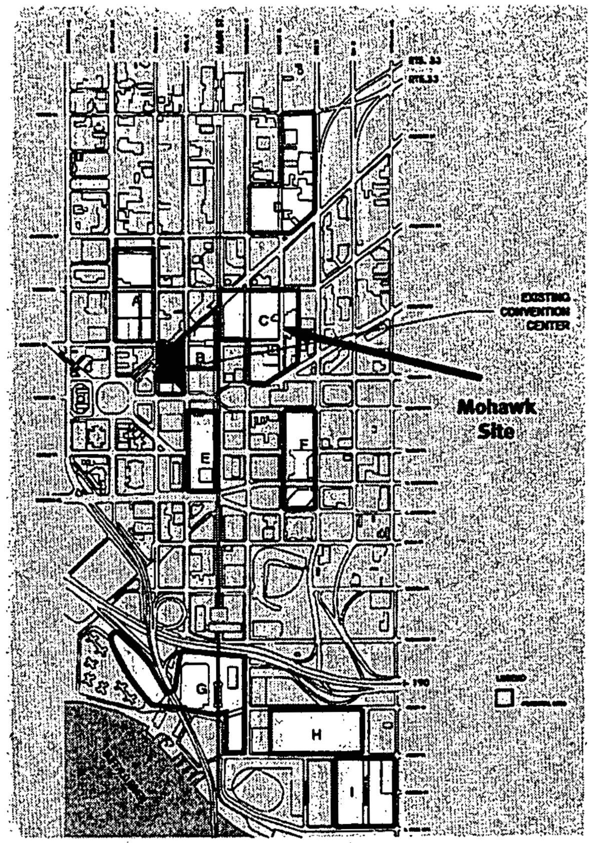
- Buffalo is geographically and strategically located for regional and national conventions.
- New York State lacks a significant venue outside of New York City, making the state "not competitive" in the national convention market. Many national associations have a strong membership from the state and there is "pent-up" demand for New York State. There are currently no convention center venues in the state with more than 100,000 square feet of exhibit space outside of New York City.
- In its early years, the new Buffalo convention center could attract 500,000 people annually – providing significant economic impact and great exposure for Buffalo and New York State.
- There are approximately 750 convention groups that could be accommodated by the proposed new facility that currently cannot consider Buffalo with its existing convention center limitations.

Based on market and physical demand projections, a new convention center should have an exhibit hall of 125,000 square feet. A convention center of that size will position Buffalo to capture a much larger segment of the convention and trade show industry.

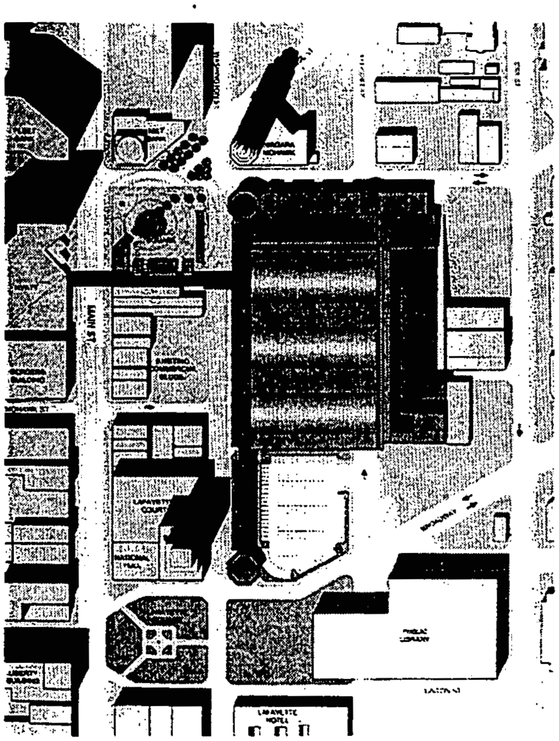
The Mohawk Site, which is bounded by Washington, Huron, Broadway and Oak Streets, ranked overwhelmingly higher than the other sites, including the Waterfront, as measured by the essential site criteria.

Extensive research and study of nine sites for the new convention center was completed in December 1998. The analysis of each site was measured against objective "essential site criteria," established by those with expertise in designing, siting, marketing and managing convention centers. Among the experts were Cannon and SMG. The combined experience of these two firms includes more than 65 successful convention center projects.

The Site Committee unanimously endorsed the consultants' recommendation, as did the former county executive and the current mayor. The site recommendation also drew the support of the broad-based boards of the Buffalo Niagara Partnership, Buffalo Place, Buffalo Convention Center Management Corporation, Greater Buffalo Convention & Visitors Bureau and the Western New York Hotel/Motel Association, as well as the Erie County Legislature and the Buffalo Common Council.



Nine sites were considered



Mohawk Site

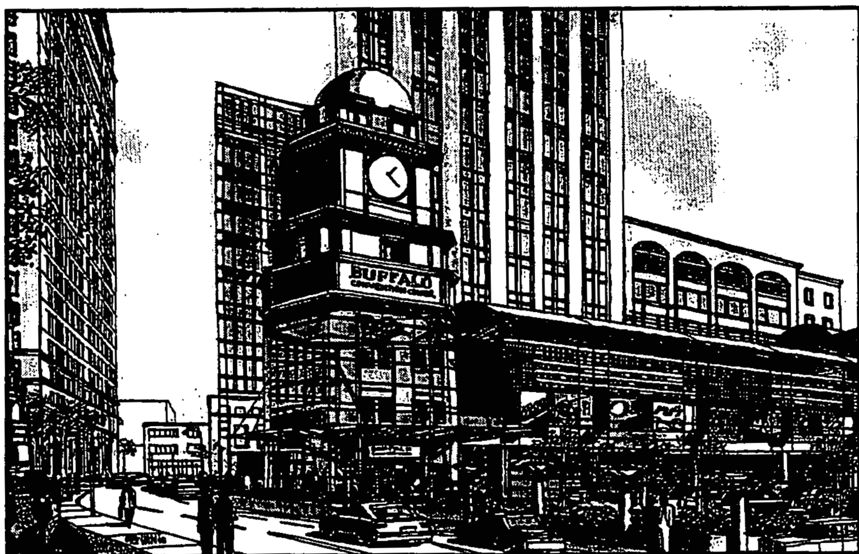
The Mohawk Site has the positive attributes that lead to a successful convention center. The Mohawk Site provides:

- Interconnectedness to a headquarters hotel
- Proximity to other supporting hotels
- On-site parking for 1,250 vehicles beneath the convention center
- Convenient access for trucks, buses, cars and taxis
- Location in the heart of the Theatre and Chippewa entertainment districts
- Excellent pedestrian access
- Ample adjacent land for private development and investment
- Sufficient lot size to accommodate both present needs and future expansion

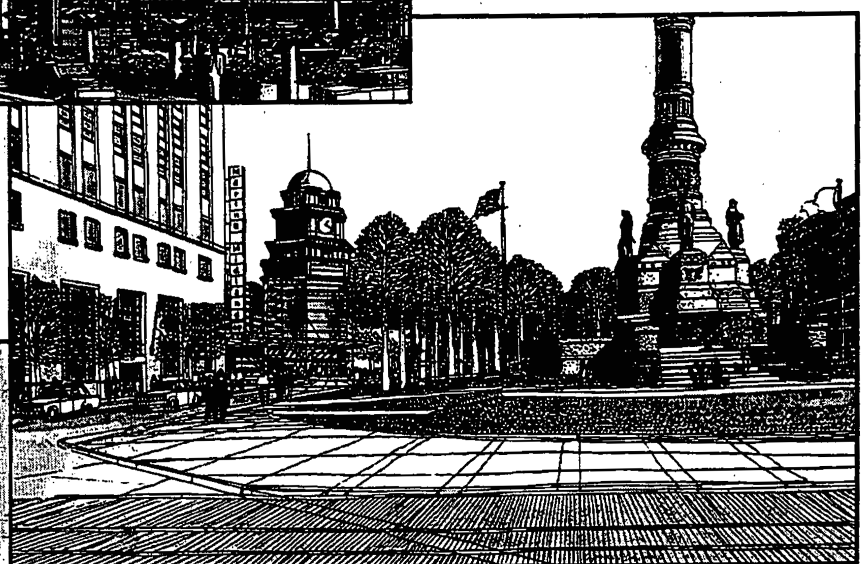
The convention center location creates an exciting urban planning opportunity for downtown.

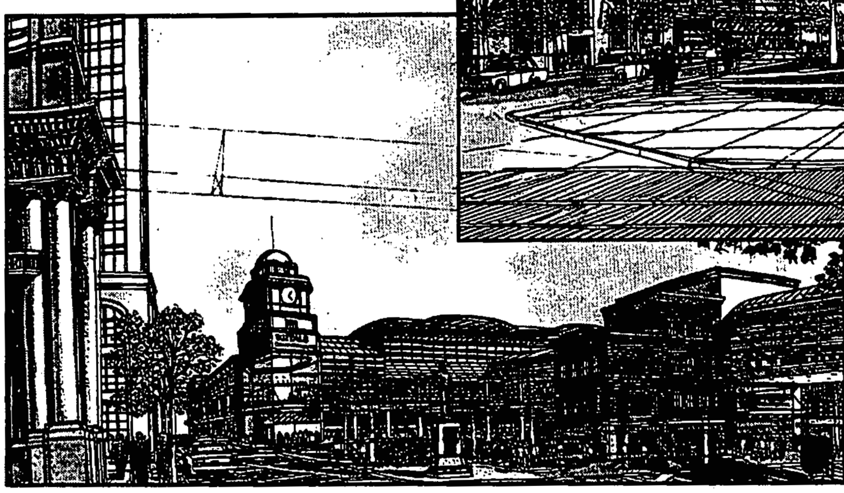
Our central business district in its present form is a "ribbon" running from the Theatre District to HSBC Arena. The proposed site plan will bring "breadth" to downtown and create critical mass in the central downtown district. Unlike the "concrete boxes" typical of past generations of convention center design, the new facility will create a vibrant streetscape in what is now a blighted area. A plaza, covered walkways, street level retail and a "see through" design strategy will create a revitalized streetscape even when the convention center is not in use. In fact, the proposed design opens up more public space and will allow some previously hidden architecture, such as the Niagara Mohawk Building, to be showcased.

The renderings shown on this page are an example of what the new convention center could look like. No formal design work has been completed at this time.



View from Broadway


View from Lafayette Square


View from Main Street

Convention center design and construction costs for the building program were estimated in 2000 at approximately $150.7 million. Delays will only increase the cost.

I. Site Costs

Land Acquisition	$ 12,000,000
Relocation Cost	$ 2,100,000
Hazardous Material Removal Allowance, Building Demolition, Utility Relocations & Site Clearing	$ 5,400,000
Subtotal: Site Costs	**$ 19,500.000**

II. Construction Costs .... **$ 78,400,000**

III. Ancillary Construction

Public Square/Streetscape	$ 1,100,000
Link to Convention Center Hotel	$ 2,700,000
Retail/Business at Street Level	$ 2,000,000
Structured Parking (650 spaces)	$ 10,000,000
Mohawk Ramp Replacement Parking (600 spaces)	$ 7,400,000
Subtotal: Ancillary Construction	**$ 23,200,000**

IV. Other Costs

Furnishings, Fixtures & Equipment	$ 7,200,000
Testing & Inspection	$ 500,000
Design, Engineering, Other Professional Fees	$ 8,200,000
Subtotal: Other Costs	**$ 15,900,000**

V. Project Contingency Costs (10%) .... **$ 13,700,000**

Projected Total Cost *$ 150,700,000*

This investment benefits the community as a whole, with $112 million in annual economic impact and an additional $13.6 million in annual taxes.

People who are directly involved with the convention industry and those who service those businesses will receive a direct economic benefit. For example, a restaurant that serves convention visitors will need more food products, better computer systems and more equipment, which means they need to acquire these items from other vendors, who will need to purchase goods and services from other vendors, and so on. Detailed economic impact numbers are included in the KPMG study.

Additional tax dollars mean the government will have more discretionary income to utilize for needs such as schools, fire departments and other vital services. With the ever-decreasing tax base our region has experienced over the last decade, the convention center will provide a source of increasing tax revenue that is not dependent on local residents.

Building the center now will also create good-paying construction jobs. With projects like the convention center, the Peace Bridge and the Adelphia/Inner Harbor development, we can keep our valuable skilled labor employed here.

Finally, those who will lose their property to the new convention center are currently operating their businesses in antiquated, technologically deficient buildings which are nearly impossible to sell and even less likely to be refurbished. By building now, we will be throwing these businesses a lifeline that will provide them with the opportunity to better succeed in the future.

The time is now.

Sources: KPMG Economic and Fiscal Impact Study (Feb. '00); Cannon/SMG New Buffalo Convention Center Site Selection Study (Nov. '98); C.H. Johnson Consulting, Inc. Greater Buffalo Convention & Visitors Bureau Convention Center Feasibility Study (Dec. '97); TIA Study, "A Portrait of Travel Industry Employment in the U.S. Economy" (1998); and International Association of Convention & Visitor Bureaus (2000).

The Milwaukee Story...
New Convention Center Revitalizes Community

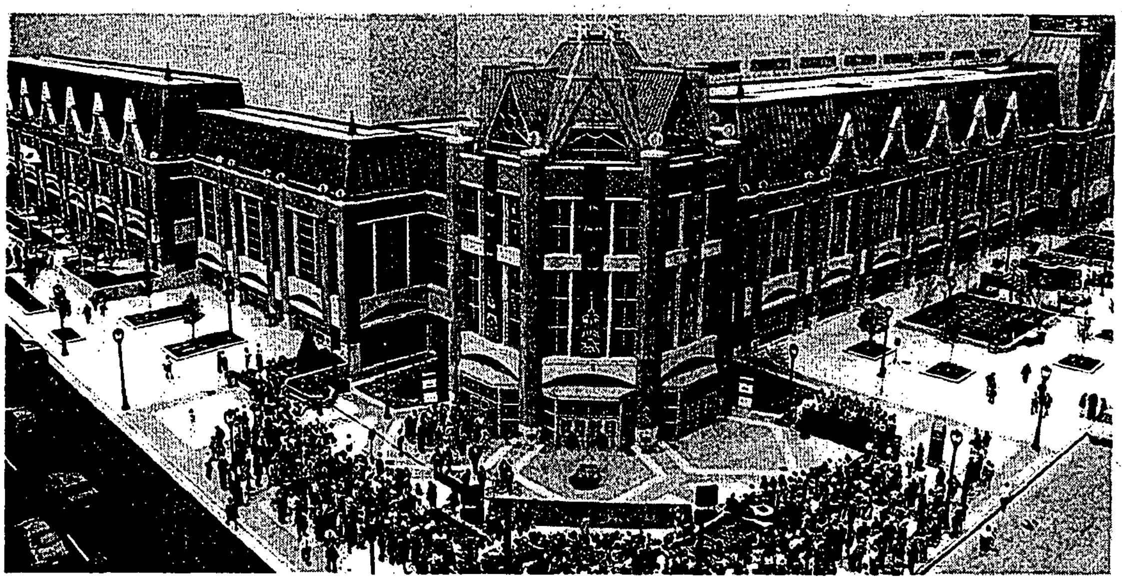
In 1998, Milwaukee opened Phase I of it's new, state-of-the-art convention center to the cheers of the local community. Constructed in a Flemish Renaissance-style of architecture echoing the city's European immigrant history, Milwaukee's Midwest Express Center has been embraced by the community, business leaders and national convention and meeting planners. Phase I included 126,000 square feet of exhibit space and a 37,000 square foot ballroom. Phase II opened in January 2000, expanding the Center to 186,000 square feet of exhibit space.

The overwhelming success of the new convention center has already prompted a feasibility study to expand the Center to 285,000 square feet of exhibit space.

Recognizing the huge economic opportunities available through a thriving convention industry, the leadership of Milwaukee has used the new convention center as the catalyst for economic revitalization.

Since the new Milwaukee Convention Center opened in July of 1998:

- Greater Milwaukee CVB representatives confirm that overall convention bookings have **increased 50%** due to the new convention center
- The projected annual economic impact of the new center (Phase I)- originally estimated to be $100 million - is now estimated to be in excess of **$130 million annually**
- **More than 1,000,000 people** passed through the doors of Milwaukee's Midwest Express Center during the first quarter of 1999
- **Hotel room nights increased by more than 100,000 annually** - from 136,000 in 1995 to 238,000 for 2000
- Due to the increase in convention activity generated by the new convention center, an estimated **5,000 new hospitality industry jobs** will be created in Milwaukee
- **More than 700 new hotel rooms** have been added to the downtown market
- **Eleven new restaurants opened** in preparation for the opening of the new convention center. Convention delegates meeting in Milwaukee's new convention center help support more than **130 downtown restaurants**



Milwaukee's Midwest Express Center

G

Citizens for Common Sense Handouts

Citizens
for
Common Sense
asks:

Do you know...

- That building a new convention center in the proposed location would involve demolishing thirty-five buildings, displacing dozens of businesses employing several hundred people, and depriving the City of Buffalo of nearly half a million dollars in property tax annually?

- That no net economic benefit will accrue to the community if the convention center is built at the Electric District - even if the Convention and Visitor's Bureau's dubious economic projections turn out to be accurate?

- That one of the consulting firms that recommended the Electric District site across from the Hyatt is 50% owned by Hyatt Hotels and Resorts?

- That a public subsidy of over $125,000 will be required to subsidize each new job created by the CVB's new convention center?

- That even those cities with downtown convention centers that are enjoying increased numbers of convention attendees are continuing to see declines in downtown retail and economic activity?

- That contrary to what the community has been told, *Meetings & Conventions*, the industry trade publication, has shown no pattern of growth in convention attendance?

- That the Director of the Buffalo Convention Center admitted to the Buffalo News last spring "I've been in this business a long time now, and I can tell you the pie isn't getting any bigger"?

- That convention center feasibility studies have consistently and demonstrably overestimated the demand for convention space?

- That investing in a new convention center moves our community away from a vibrant, bustling, 24-hour downtown?

There are cheaper, smarter, better investments we could be making in Downtown Buffalo right now that would move us closer to having a vibrant 24-hour downtown, and Citizens for Common Sense would like to tell you about them!

Citizens for Common Sense is a not-for-profit organization of Western New Yorkers dedicated to creating a vibrant, exciting, regional center in downtown Buffalo.

We are made up of citizens, residents, business owners, property owners, architects, urban planners, students, parents, teachers, and many others. In short, we are and represent a diverse range of people dedicated to ensuring that no longer will the same people make the same decisions that have furthered the decline of Downtown Buffalo for the last thirty years.

We advocate open process, sustainable development, and smart use of our existing resources - whether they be buildings, people, businesses, cultural and physical physical heritage or streets.

We are determined to save the five blocks known as the Electric District (called the Mohawk Site by the Convention and Visitor's Bureau) as a physical and economic resource. Current proposals to build a new downtown convention center on this site have been made behind closed doors, have involved almost no public input, will destroy thirty-five downtown buildings, and will be a waste of our resources. It will displace several dozen downtown businesses (indeed, has already displaced half a dozen), further encroach on the Ellicott Street Plan, and cut off the East Side of Buffalo from downtown.

If you would like to see community decisions removed from the back rooms so that we can enjoy more opportunities for success like the Peace Bridge process and the Inner Harbor, join Citizens for Common Sense by sending in this membership form. Membership is free, but your donation will help offset mailing costs, allow us to bring in national speakers, continue to oppose destroying the Electric District to build a new convention center, and bring in a nationally known consultant to study the feasibility of investing in a mixed-use neighborhood at the Electric District.

Join us by filling in this slip and sending it back to us at:

Citizens for Common Sense, 11 Summer Street, Buffalo, New York 14209. You can also reach us through our website at: buffaloconventioncenter.org

Name:____________________

Address:__________________

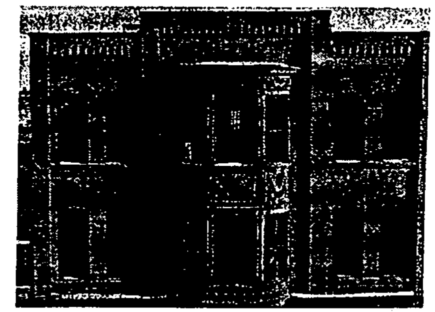
____

____

Email address:______________

____

Please join Citizens for Common Sense and help build a vibrant and sustainable Downtown Buffalo!



A "blighted" building in the Electric District.

A-77

H

New Buffalo Convention Center EIS Scoping Comments

The Convention Follies, Part 1: *A Municipal Affair*

by hank bromley

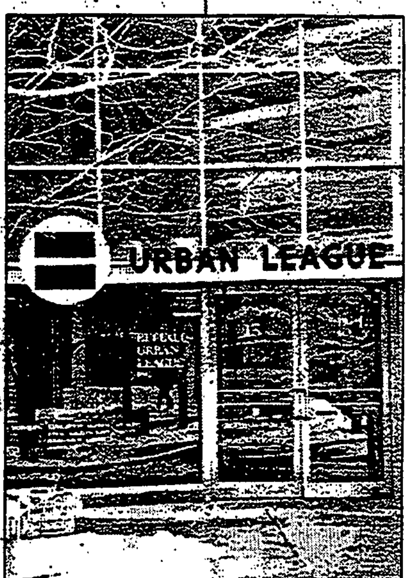
This is the first in a series of articles about the convention center controversy to appear over the next two months. This first article addresses why it even matters whether and where we build a convention center.

A job brought me to Buffalo. The city keeps me here.

I've lived in some pretty nice places: five years of student life in the middle of Boston, a city known–at least to itself–as the Hub of the Universe; a year working in the far north of Sweden, at the end of the world; later, eight years in Madison, Wisconsin, in another world altogether (a popular post card, merging a NASA photo with the Madison skyline, is captioned "Earth as seen from Madison"; an annoyed official once called the place "a 23-square-mile island surrounded by reality"). From big city life to forested wonderland to stubbornly progressive model village...all delightful, but none prompted the emotional attachment Buffalo has.

Maybe it takes an outsider to appreciate Buffalo. Among my colleagues at UB, it's mostly the newcomers and out-of-towners that choose to commute from downtown and babble on about how glad we are to live here. Those from WNY seem to see only what's been lost over the years, not what's still here and the potential for rebuilding.

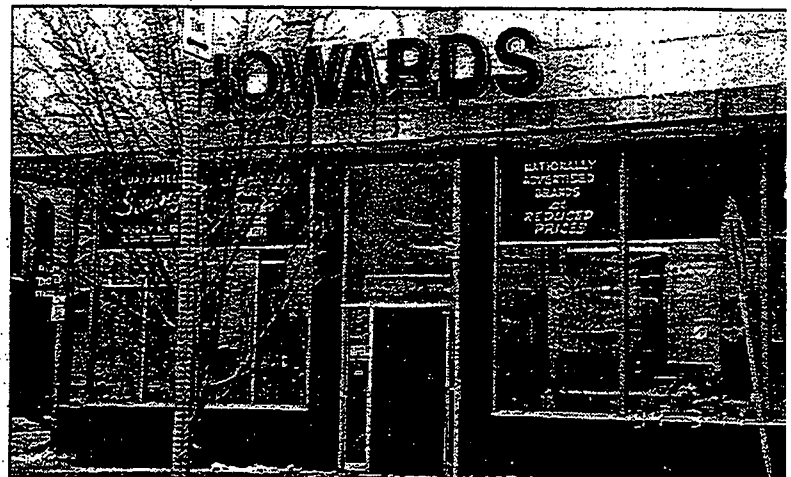
And what is here that's so special? No single thing. Buffalo has amenities: within a short walk of my home are half a dozen terrific and reasonably priced restaurants, ranging from nouvelle to Continental to seafood to Indian to Greek to Italian, three different artisanal bread bakeries and two specializing in sweets, and shops for unusual clothing, records, books, antiques, artworks, fresh-roasted whole coffee beans, brewed coffee, wine, flowers, fresh produce, and entirely unclassifiable items. It has cultural resources for varied tastes: within two miles are the Albright-Knox Gallery, Ujima Theater Co., Kleinhans Music Hall, Nietzsche's, the sites of Shakespeare in the Park and the Allentown Art Festival, several architectural treasures, and many acres of Olmsted parkland. And the streets nearby are lined with 100-year-old maple and oak trees, behind which are handsome houses built to last and residents who take great pride in their flower gardens. Where else could I find all this? Maybe a few neighborhoods in Manhattan, but there, an assistant professor's salary would cover, at best, a basement shoebox barely able to hold my books, instead of a 19th Century bank president's residence.



When my parents–who *did* grow up in New York City–last visited, my mom couldn't get enough of walking around the neighborhood. She's lived in the suburbs for forty-five years, and had forgotten what she left behind. An urban neighborhood is a singular kind of place, an assemblage of diverse elements in dynamic balance. The people, the buildings, the landscapes, the activities–each are just similar enough to establish a distinctive identity, and different enough to remain slightly edgy and endlessly absorbing. Many commercial districts and suburbs offer only stultifying sameness; wealthier and less urban districts may offer variety, but within a single stratum and at a remove from public space. On my street, to Mom's delight, the houses are all different, yet close enough together and to the sidewalk for passers-by to admire them–and chat with the porch-sitters.

The once commonplace urban neighborhood, this intricate complex of disparate elements in creative tension, has nearly vanished from the American scene. A growing national trend, however, involves rediscovering what the urban neighborhood offers. Since this unique environment abounds in Buffalo, we have a tremendous resource, and one whose value is only going to become more clear over time.

I'm not suggesting everything is just swell here. Buffalo has suffered terrible losses–repeatedly. Although it's a great place to live *if* you have a decent job, all too many Buffalonians have neither an adequate income nor reasonable prospects of obtaining one any time soon. Perhaps the resulting underdog status and potential "comeback" storyline are part of what appeals to transplants like me, but I realize how segregated the city is,



and what different conditions are faced by those living between Richmond Ave. and Main St. and by those to the east or west of that narrow slice. The social fabric and physical infrastructure of the city have become appallingly frayed, partly through the capricious play of larger forces, but partly self-inflicted, via a series of stunningly bad ideas imposed over the decades by short-sighted, self-seeking, and imperiously hermetic local decision-makers.

Which brings us to the topic of this series. Tearing down a chunk of what remains of the downtown core to build a new convention center at the Mohawk site would be another such blunder: it would diminish exactly those urban qualities that constitute Buffalo's greatest resource and have kindled my passion for the city.

ARTVOICE readers have already heard a bit about the convention center proposal from other members of Citizens for Common Sense; you'll be hearing a lot more over the next couple of months. I'm writing to discuss the issues in more detail, and to explain why a bunch of busy people with no direct stake in the outcome have opted to take on the full-time paid lobbyists who have loudly proclaimed a "consensus" in favor of building at the Mohawk site.

Topics to be addressed in this series include:

- What makes a healthy and vital urban neighborhood, and how the proposed project creates exactly the opposite.
- The *present* economic contributions of the area slated for demolition (hint: more than the anticipated benefits of the convention center), and its even greater potential value under a more sensible development plan.
- Why, if the proposal's such a terrible idea, the supporters are pushing for it: from the simply misinformed to the nakedly self-interested.
- Alternatives to building at the Mohawk site: building it somewhere else–or not at all, and putting the money to better use, in light of the actual economics of convention centers and the region's other needs.
- The critical issue of public involvement in decisions that affect us: lessons from past calamities, and encouraging signs in the present (Twin Span, anyone?).

We're told a new convention center will bring tens of thousands of visitors who will spend millions of dollars. Of course, one has to wonder how the numerous cities hoping to cash in with new convention centers will all increase their market shares simultaneously, and how many associations will choose to move their meetings from, say, New Orleans to Buffalo–especially between November and March–and how local stores and restaurants are supposed to thrive on alternating deluges and droughts of customers, and how enclosing Ellicott Street in a 800-foot-long tunnel and walling off the East Side will bring more people into downtown. And then there's the matter of the Hyatt being half-owner of the firm brought in to consult on the site placement study–a study which, not surprisingly, recommended a site adjacent to the Hyatt (see the December 2, 1999 ARTVOICE, pp. 10-11).

Look, Buffalo went through this twenty-five years ago, when part of the downtown core was cleared to build the current convention center. That center is a money-loser, and the surrounding businesses, far from reaping a windfall, have been wiped out. We were promised demand for hotel space would soar, and 3,000 additional rooms would be needed. Instead, the Statler soon failed, despite–if not because of–its proximity to the convention center, and today downtown has 77 *fewer* hotel rooms than before the center began operating. We were promised an enormous expansion in business opportunities. Instead, the businesses formerly on the site were scattered to the winds (some moved to the suburbs, some left the area altogether, some simply cashed out, and a few relocated elsewhere in downtown

THE CONVENTION CENTER FOLLIES
A Municipal Affair

BY HANK BROMLEY

[This is the second in a series of articles about the convention center controversy. Previous articles in the series are available at http://www.gse.buffalo.edu/fas/bromley/CCS/.]

Take a nice long walk along Elmwood Avenue, for, say, half an hour. What do you see? People: working, shopping, exercising, eating, playing, resting, and just strolling. People watching the other people. Houses, apartments, stores, restaurants, banks, libraries (for now, anyway), churches, parks. Rich people and poor; old and young; locals, suburbanites, and out-of-towners; every race and ethnicity. Pedestrians, bicycles, cars, buses. In short, a little of everything – any time of day, any day of the week, in all weather. Elmwood Avenue never sleeps.

Now try walking alongside the current convention center, on Pearl or Franklin. Not so entertaining, is it? Where'd all the people go? Half an hour seems awfully long – this street never wakes.

Why are these two places so different? Oddly enough, there are far more people per acre downtown (at least during weekdays) than along Elmwood. Why are the sidewalks so empty? What do vibrant streetscapes like the Elmwood strip, most of Hertel Avenue, Main Street in University Heights, and all those quaint towns where people love to spend their vacations have in common, that the perimeter of the convention center doesn't share?

Urban health and vitality

Cities are particular kinds of places. Traits that may be perfectly salutary elsewhere can be devastating in urban centers; what they need is not the same as what suburbs or small towns need. Streetscapes at odds with how cities actually function, no matter how attractive on paper, and how successful they might be elsewhere, will only wreck an urban neighborhood.

Pedestrians are the lifeblood of cities. They sustain retail businesses, their presence makes the streets safe, and – once you have enough of them – they serve, in themselves, as an attraction to yet more people.

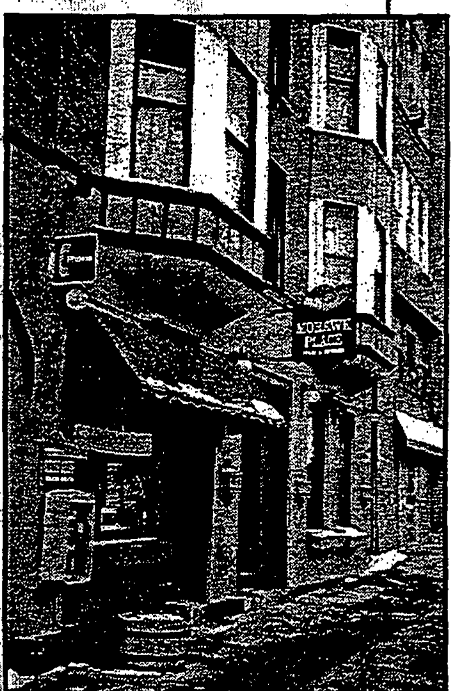
And what kind of built environment brings out the pedestrians in sufficient numbers to support shops and restaurants (which, in turn, attract more people), keep the neighborhood safe, and make a location feel as though it *is* someplace–bringing yet more people to the streets, in a mutually reinforcing cycle? What is the foundation for urban vitality?

Jane Jacobs' classic text, *The Death and Life of Great American Cities*, constitutes the long answer to that question. Read it. Please. Then see how resistant you become to misconceived development schemes.

Until then, a short answer is *density and diversity*.

Generating the steady stream of round-the-clock, heterogeneous pedestrian traffic that feeds an Elmwood strip requires lots of destinations that different kinds of people want–and need–to visit, at different times of day. Purely residential neighborhoods tend to be active in the morning and evening, and completely dead in between; office space generates traffic just before and after the work day and during lunch; bars populate the streets late at night, etc. Keeping the streets lively depends on "mixed use," with all sorts of destinations interspersed. A coffeehouse next door to a sports bar may draw largely separate clienteles, but each still benefits from the presence of the other, even were the customers of one never to enter the other: the added traffic, whether stopping in or passing by, still makes the sidewalk both safer and more interesting to be on (or watch through the window while sipping cappuccino).

While many building uses can contribute, some are particularly efficient at generating pedestrian traffic. Relative to their size, retail outlets and food service are especially prolific. Urban geographers have exhaustively measured "trip generation" for different kinds of structures. In *Urban Space for Pedestrians* (Boris Pushkarev and Jeffrey M. Zupan), for instance, tables show residential structures generating about 10 trips (entrances or exits) a day per 1000 sq. ft., office space about 10-50, restaurants about 200, department stores about 250, fast food outlets about 500, and one supermarket a stunning 536 daily trips per 1000 sq. ft. Publicly accessible services clearly generate many more trips than offices or residences, and are essential to achieve the necessary volume of pedestrian traffic. But again, a healthy district requires a broad mix of building uses in order to spread the traffic around the day and week.



The various destinations must be packed closely together, so that the "dead space" between pedestrian-attracting destinations is short enough to facilitate crossing to the next island of interest – thereby incorporating even the dead space into the flow of pedestrian traffic. This is one of the key differences between the needs of urban and suburban places: lots of open space between buildings may be visually appealing and perfectly functional in a setting where everyone drives to each destination, but in an urban neighborhood it only obstructs the pedestrian flow that's essential for all the destinations to mutually support one another. An unbroken street facade is best. Think again of Elmwood Avenue, with its continuous storefronts, a fresh one every twenty feet or so, and all directly abutting the sidewalk: perfect for keeping your interest and leading you past–or to–many attractions besides your planned destination.

Now what happens when you reach a detached building set behind a large street-front parking lot? That parking lot may be attractive to the passing motorist, but it's the kiss of death for pedestrian traffic. If we must have the parking, put it behind the building, and leave the street facade intact. Or build a parking structure directly on the street, perhaps with retail space on the ground floor. The setback not only suppresses pedestrian traffic to the building itself, but the gap it creates terminates the traffic that would otherwise flow past it thus severing the links among its neighbors. Even without the parking lot, a single building whose scale is out of keeping with the neighborhood can pose an equally forbidding barrier simply by virtue of its size, despite retaining an unbroken facade, flush with the sidewalk. A lengthy stretch of monotony is just as ruinous as empty space.

So urban vitality depends on densely packed, mixed-use structures, varying in type and size but moderate in scale. A mixture of building ages and conditions is, however, equally important: varied uses require varied operating expenses. A healthy urban neighborhood actually needs an ample supply of low-rent space in relatively rundown quarters – they constitute an incubator for fledgling and innovative ventures (which until more fully established cannot afford the higher overhead of finer quarters) and a point of entry for lower income renters. Building stock all of the same age and quality, by imposing a uniform cost structure, inhibits diversity of use and population, and thereby threatens the long-term viability of the neighborhood.

The street layout itself also shapes activity within the district. Short blocks and frequent corners offer multiple possible paths into, out of and through the neighborhood. Multiple paths through the area mean a person can vary the route of routine trips between, say, home and work, thus bringing a wider variety of people past each location (and into contact with each other), enabling a given population to support a more diverse range of establishments. Multiple paths into and out of the area better integrate it with the immediate surroundings. Imagine how different the Elmwood strip would be if it were one long block, accessible only from either end, lacking the frequent side streets knitting the primarily commercial avenue itself together with the primarily residential adjacent streets.

THE CONVENTION FOLLIES, PART 3:

"Blight" or "Opportunity"?

BY HANK BROMLEY

[This is the third in a series of articles about the convention center controversy. Previous articles in the series are available at http://www.gse.buffalo.edu/fas/bromley/CCS/.]

Part 2 of this series (in the February 10 *Artvoice*) discussed how ramming a new convention center into the Electric District (Mohawk site) would further diminish the vitality of downtown Buffalo. As we should have learned from our last convention center, massive single-use structures with intermittent usage patterns effectively dissipate the constant pedestrian flow so critical for generating a vibrant streetscape and sustaining local businesses.

If that's what Citizens for Common Sense is against, what are we for? Are we simply fault-finders, zealously opposing all progress, just to be contrary, or do we have something better to suggest? We do – something more readily attainable and healthier for downtown, while building on the unique characteristics of what's already in the district.

At the February 15 convention center debate, when the Electric District was called a blighted area, Mark Goldman aptly observed that one person's "blight" is another's "opportunity." Such out-of-favor areas as Miami's South Beach and Manhattan's SoHo were similarly denigrated – just before becoming the liveliest neighborhoods and most hotly pursued real estate around. That's no accident: the very characteristics that evoked disparagement provided the foundation for resurgence. Old, worn-down buildings, high vacancy rates, and low real estate values are a perfect environment for housing creative folks of limited means, and supporting innovative ventures operating on a shoestring. Cheap rent and soulful buildings – full of character but just shabby enough to encourage ad hoc alteration – are fertile ground for ingenuity. And cheap space in slightly faded buildings with character is exactly what the Electric District offers.

The status quo

Before delving into how the Electric District's full potential could be realized, consider first what's already there – and how it compares to what we've been told a new convention center would bring. There are some 40-50 buildings slated for demolition. (You can see an aerial photograph of most of the affected area at http://www.gse.buffalo.edu/fas/bromley/ccs/mohawk.jpg. The exact number of buildings depends on whether we include those on land designated "for future expansion" in the convention center plans.) The area contains about 35 businesses, and CCS member Daniel Sack canvassed every single one personally, determining that they employ about 600 full-time workers and generate sales of over $50 million annually. Since Daniel's survey, the Holling Press has announced it will be closing down. *The business could resume under different owners, but even if it simply ceases, that still leaves about 550 full-time workers and close to $50 million in annual sales.*

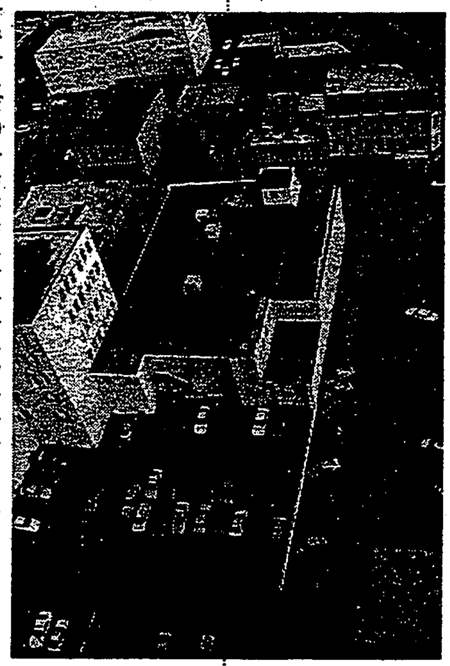
Meanwhile the Johnson feasibility study projects that the impact of a new convention center would be an increase, beyond current convention-related economic activity, of 579 full-time-equivalent jobs in Erie County (616 statewide) and $32.9 million total economic benefit ($36.4 million statewide). The projections are likely overly optimistic – they assume the new facility would attract five times as many conventioneers as the current one, and include various indirect benefits I haven't added to the Electric District figures – but let's be generous and accept the projections at face value. That would still mean that in its unimproved, somewhat underutilized state, the Electric District is generating at least $10 million more economic activity annually right now than replacing the convention center would generate. (You may have heard a figure of $58.7 million cited for the economic impact of a new convention center. The Johnson report estimates the statewide impact of activity at the current convention center to be $22.3 million. The projected increase of $36.4 million would bring the total statewide impact to $58.7 million – but we're already getting $22.3 million of that, without building a new center. The report clearly indicates that the payoff from the project would be the $36.4 anticipated increase.)

As for jobs, those current full-time workers in the Electric District are averaging $30,000 a year, but convention-related employment is largely food service, hotel, and retail work, paying little more than minimum wage. Also, note that the Johnson report estimates job creation in terms of "full-time equivalents," not jobs. Those 600 FTE's might represent 1200 half-time positions, or 2400 quarter-time ones. Most will be contingent, part-time jobs, with short-lived peaks when a big meeting is in town and long gaps between calls. No benefits, no security, and certainly no supporting a family on a half-time job at minimum wage. A rather poor trade for 550 full-time skilled positions in printing and electrical work.

Convention center proponents argue that the current Electric District jobs won't be lost, as those businesses will simply be relocated. The idea that after selling their buildings all of those employers will stay in business, and relocate within downtown, is pure fantasy, but let's continue being generous and assume that fantasy will come true: not a single current job lost, and all the new McJobs, limited though they may be, come in addition to what jobs are now available. Now it's pretty attractive, right? Well, at the current estimated construction cost of $151 million (and, speaking of fantasy, does anyone believe that figure won't rise again before all is said and done?), that comes to a mere $251,667 per FTE. Let that sink in for a moment: each $7/hour temporary fast food job created will cost a quarter of a million dollars in public funds. And that's giving the estimates every benefit of the doubt. Do you suppose we can't find a better way to create jobs with that money? Just last week, the Buffalo Economic Renaissance Corporation announced that its assistance to private employers during 1999 had

Part 2 of this series discussed the critical dependence of urban vitality on dense packing of diverse building uses, in order to populate the streets at all times of day. Piecemeal conversion of older structures, along with a modest amount of in-fill to close the gaps created by surface parking lots, is an excellent way to increase density and diversify building use by capitalizing on Buffalo's unique architectural heritage, while retaining a wide enough range of building ages and conditions to welcome residents and businesses of varying means. Massive new construction – what Jane Jacobs calls "cataclysmic money" – would pose a threat to diversity, tending to produce uniform building use and cost structures. Rehabilitation also has the advantage, compared to new construction, of keeping more of the funds used to underwrite the work in circulation in the local economy: rehabilitation involves spending relatively more on labor and less on materials, and labor is more likely to be supplied locally than are materials.

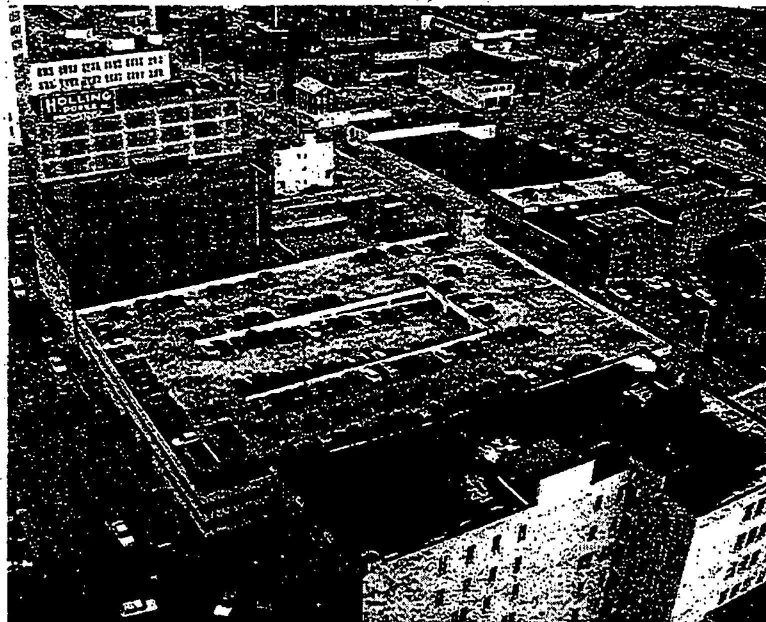
This emphasis on multiple, small-scale projects does not mean, incidentally, that government funding has no useful role. I am certainly not one to oppose all government involvement, on general principles. Although promoting megaprojects undermines diversity, government – at any level – can actively encourage healthy, diverse development through other means, by lowering the threshold of wealth needed to take up residence or start a business in targeted areas. Instead of spending $150 million to obliterate the Electric District, the county and state could, for instance, guarantee or directly provide loans (for moderately scaled purchases or rehabilitation) that private banks might deem insufficiently profitable. Banks, for that matter, could themselves contribute similarly. Numerous banks around the country have made community development a priority; they invest in a neighborhood by providing loans below market rates or to local residents with limited credit histories, thereby trading immediate profits for greater long-term stability and prosperity of the community. Top executives of M&T Bank have taken a leading role in promoting the convention center project. They could exercise a more beneficial form of leadership by directing some of the bank's own resources to such a community banking initiative in the Electric District. I would love the opportunity to commend them heartily for it.



Another governmental action that reduces the wealth threshold for living in a district, described above in both New York City and Providence, is to subsidize directly the rent of residents who contribute to the unique character of the area (artists, in this case). All kinds of subsidies and rent guarantees could be used to promote a rich and vibrant cultural life in the Electric District.

If these ideas seem rough or sketchy, consider the small fortune the Convention and Visitors Bureau has already spent commissioning the Johnson feasibility study and the Cannon/SMG site selection study. Given a fraction of those resources, we too could produce a polished plan, with detailed projections and enticing artists' renditions. Indeed, Clarion Associates of Chicago and Denver, a national leader in historically sensitive redevelopment, has provided a quote of less than $20,000 to generate an Electric District plan. If we're to have a genuinely public discussion of the convention center issue, shouldn't we level the field a bit? Unlike the CVB, we're not funded by the hotel tax, so we can't afford that fee (or direct-mail campaigns and sponsorship of multiple spin-off advocacy groups). But shouldn't we get to hear a second opinion before demolishing over 40 buildings and committing to a project on this scale? How about it, Mayor Masiello and County Executive Giambra? Isn't it worth $20,000 to find out about the alternatives? What do you say?

Hank Bromley teaches at the UB Graduate School of Education and is a member of Citizens for Common Sense. He can be reached at hbromley@buffalo.edu.



THE CONVENTION FOLLIES, PART 4:

AN INTERVIEW WITH HEYWOOD SANDERS

by Hank Bromley

[This is the fourth in a series of articles about the convention center controversy. Previous articles in the series are available at http://www.gse.buffalo.edu/fas/bromley/CCS/.]

Heywood Sanders is Professor of Urban Studies in the Department of Political Science at Trinity University in San Antonio, Texas. His area of expertise is urban policy, and for nearly two decades now his work has concentrated on the issues surrounding construction of new convention centers. Prof. Sanders will be speaking in Buffalo on Tuesday, March 28 (see adjoining advertisement). We had a chance to speak by telephone earlier this week.

How did you end up specializing in the politics and economics of convention centers?

In the early '80s I had a grant from the 20th Century Fund—since renamed the Century Foundation—to research the politics of urban infrastructure. There was a lot of concern over the deteriorating condition of bridges, sewers, and the like, in many cities. My study's purpose was to determine where deterioration happened and why. It was thought that urban infrastructures were crumbling because cities had no money for repairs, or because no one cared enough about these public resources. But I found that the same cities with the worst unaddressed infrastructure problems were spending money on other public projects. There was money for some things but not others. What got funded depended on what worked politically. Big, central-city projects with powerful backers—specifically stadiums, arenas, and convention centers—were happening despite limited fiscal resources, and infrastructure repair was not.

I continued to work on the question of what got built and what did not, and by 1991, when I wrote a paper called "Building the Convention City" for the Urban Affairs Association, examining Denver, St. Louis, and San Diego, I was starting to hear from reporters around the country. They would call and say "Some people want to build a convention center here, and they have a study showing it will make us a lot of money. How do we know how reliable those figures are?" So they would send me the feasibility studies, and I became familiar with what was going on all around the country.

Foundations also began to call, asking if I would do independent studies of proposed convention center projects in their cities. That's how I came to do the work in Boston, with the Pioneer Institute.

Yes, I was curious about that partnership. Isn't the Pioneer Institute a very conservative group, attempting to shrink government by opposing public spending of all kinds?

Right. It turns out the conservative/liberal labels don't work very well at the local level. The same business leaders who scream about taxes at the state and federal level are the ones pushing for construction of convention centers at public expense in their own cities. In this case, working with Pioneer made sense, once I confirmed that they were committed to respecting the integrity of the study. In the midst of a debate over a proposed new convention center, they wanted to know whether the promised benefits of a recent major expansion of the existing center (the Hynes Auditorium) had been delivered, how well the results matched the projections in the feasibility studies, and they were able to provide me with the resources I needed to do the work.

What did you find?

There had been a slew of studies—piles of studies, boxes of studies—justifying the Hynes expansion. And the project was done well. Architecturally, it's good work, the renovated center is functional and pleasant to be in. But on essentially *every* major indicator, it produced basically nothing. Take hotel occupancy: despite projections of a large increase, the occupancy rate was actually higher during the reconstruction of the center, while it was shut down, than after it reopened.

Why was that?

In a city like Boston, the demand for hotel rooms generated by conventions is just not significant. It's such a small fraction of the total demand—about 5%—that any impact it might have is overwhelmed by other factors.

Doesn't that support one of the arguments of proponents of a new center in Buffalo: the city is small enough that an increase in convention-related hotel occupancy here *would* appreciably affect the total demand.

Yes, we're coming to that. After hearing from more reporters, and increasingly from public officials also looking for assistance, by now I've read about forty different feasibility studies. And you know, not a single one says don't do it, don't build a new center. Not one even says this *might* not be a good idea, or maybe you should be cautious. Every single one says "Build it, you'll do great."

I now have a study done for Niagara Falls, Ontario. It says there's tremendous unrealized potential for convention business there, because of proximity to the U.S. It says "You're accessible from everywhere in the eastern and northern U.S., and you're close to Buffalo, where good things are starting to happen." It provides a whole list of large shows and meetings just waiting to come to Niagara Falls, if an adequate facility is built. But you hear the same thing in Buffalo. And in Cleveland, and Pittsburgh. Everyone gets a study saying "Build it, and good things will happen." But with everyone adding capacity at the same time, some will win and some will lose.

In any other area of economic activity, people know you have to build on your strengths rather than playing into your competitor's. If you were opening a small shop, a Mom-and-Pop store, where would you put it? Would it be at the intersection of your main street and the interstate, directly across from Home Depot? No, you'd find a niche where you can operate and they can't. You wouldn't go head-to-head with Home Depot; you can't compete on their turf and on their terms. The same applies here. Suppose you do double the size of your convention center, to 125,000 square feet. Well, the McCormick Place Convention Center in Chicago has 2.2 million square feet, and they're desperate to fill it. They're even trying to lure small and medium-sized meetings, because there aren't enough big ones to fill the space. Buffalo can't compete with that.

So when we see a set of projections for the impact of new convention center, how should we assess the reliability of the figures? What kinds of questions should a reader ask?

You have to ask how they arrived at these numbers, and what relationship the numbers have to reality. And when all the reports reach the same conclusion, you have to take a closer look.

It seems Johnson Consulting, which produced the feasibility study for Buffalo, has done a great many of these reports.

Johnson Consulting has done similar studies for Boston, Milwaukee, Charlotte, and Austin that I've reviewed. In each case, the conclusion was that the city should build or expand convention center space. Even in the cities that have long been held up as models of convention center success—places like Washington and particularly Atlanta—there have continued to be declines in downtown retail and economic activity, constant demands for new public projects and investments, and calls for ever more convention center space to remain competitive.

THE CONVENTION FOLLIES, PART 5

A Conversation with Jane Jacobs

[This is the fifth in a series of articles about the convention center controversy. Previous articles in the series are available at http://www.gse.buffalo.edu/fas/bromley/CCS/.]

Even though—or perhaps because—she has no formal training whatsoever in architecture or planning, Jane Jacobs has utterly transformed the field of urban planning. Born in Scranton in 1916, she observed first-hand the demise of a regional coal-dependent economy and the towns it formerly sustained. A series of writing and editing jobs in New York City bred a lifelong fascination with cities: how they function (or fail to) as living, complex webs of relationships in dynamic balance; their fundamental role in economic life; the parallels in the behavior and needs of urban economies and natural ecosystems.

> "I think the idea of making a kind of compound for the out-of-towners, the convention people, and plunking it right in the middle of Buffalo, is terrible."

Her first and most famous book appeared in 1961. *The Death and Life of Great American Cities* was a frontal assault on urban policy of the time. Its first sentence reads "This book is an attack on current city planning and rebuilding." No mere "quibble" over technique, the book denounced the very "principles and aims that have shaped modern, orthodox city planning and rebuilding." Professional planners were dismissive of the unlettered upstart. The *New York Times'* reviewer, on the other hand, called it "the most refreshing, provocative, stimulating, and exciting study of this greatest of our problems of living which I have seen." As discussed in Part 2 of this series (*Artvoice* v11n6), the book illustrated the importance of densely interwoven, diverse, mixed-use streetscapes, full of varied pedestrian traffic and indigenous vitality—polar opposite of the prevailing (and since discredited) Garden City model of "urban renewal" that bulldozed communities and scattered new high-rise residential structures across plains of greenery, replacing the "chaos" of traditional city life with tidy sterility. In the years following the book's appearance, Jane Jacobs helped lead a successful community campaign to block a Robert Moses plan for just such a project in her beloved Greenwich Village neighborhood.

In 1968, with two draft-age sons, she and her husband moved their family to Toronto, where she has lived ever since, continuing her writing and her local activism. Her books since then have included *The Economy of Cities* (1969), on the processes of economic growth and decline, *The Question of Separatism* (1980), on Quebec and sovereignty, *Cities and the Wealth of Nations* (1984), on the primary role of cities in regional and national economies, *Systems of Survival* (1992), on the two moral systems of business and politics, and her current book, *The Nature of Economies* (1999), analyzing economies as a form of natural ecosystem, developing according to the same principles.

I recently had the opportunity to speak with Jane Jacobs about her work, the shared features of economies and ecologies, the nurturing and abuse of cities in general and Buffalo in particular, and convention centers; Tim Tielman, executive director of the Preservation Coalition of Erie County, joined us. Following is a slightly condensed version of our conversation.

[JJ=Jane Jacobs, HB=Hank Bromley, TT=Tim Tielman.]

HB: I thought I'd start by asking how you started writing about cities and what makes them work.

JJ: Well, I really explain all that in the Introduction to *The Death and Life of Great American Cities*. In brief, I was working for an architectural magazine, and I became dismayed at how unrealistic the plans that I was writing about were. I saw that they didn't really make very magnetic or attractive city areas; people seemed to shun them instead of enjoying them. And then I was fortunate in having a good mentor who had been thinking about the same things, the head worker of a settlement in East Harlem. And he got me thinking along the lines of how city streets work.

HB: In ways that professional planners hadn't really been considering?

JJ: No, they didn't like the street.

"Progress occurs funeral by funeral"

HB: What was the reception to *Death and Life* when it first came out? I had heard that it was initially treated quite negatively by the professionals.

JJ: Well, it divided into two startlingly different kinds of reception. I got a very good public reception. The planners hated it. The architects were divided.

HB: What determined the nature of the division, which side one came down on among the architects?

JJ: I used to wonder about that, and I decided there were foot people and car people. I treated that in the later Introduction I wrote for the Modern Library edition of *Death and Life*.

[She wrote there that "foot people," who prefe to walk, found the book to corroborate thei own—frequently devalued—experiences, and responded enthusiastically. "Car people" had no such reaction. Since architecture schools o the time were vehemently anti-foot, the foo people among the students found the book wonderfully subversive, as it exposed the unworkability of the ideas behind the form o education they were enduring.]

JJ: What I've just explained, about the reception of it, was for when it came out. It doesn't hold for now. There are quite a lot of planners who like it now.

HB: Yes, I was going to ask about that, as well. It's been half a lifetime for you since you wrote that, and indeed for many of the readers an entire lifetime since it was written—

JJ: Yes, more than a lifetime—

HB: So I was wondering what kinds of things have changed in that time about your own understanding of the topics discussed there, and in the reception.

JJ: Well, it's a generational difference in the reception. Somebody said "Progress occurs funeral by funeral," and I think that's basically what happened. There were a lot of planners who *never* could embrace this view, but they retired; they died, a lot of them, and a new generation saw things differently.

HB: So these days it's treated as a classic

hotels are not the kind of people we want downtown, the businesses are just small ones, and anyway, what we could do is move everyone out, give them a new place of business elsewhere in the city or in some industrial park, and the people—well, there's plenty of other housing available." Is there some value, above and beyond the wages paid by a business and the supplies they buy within the local economy, in having them in a particular place within a city?

JJ: Yes, they are not dopes about where they locate. You can't put them in the boondocks and expect them to operate the same. Location in a city is very important, and being in a central location is most important for the small businesses, because they aren't as self-sufficient. You can look at downtowns, which are the most economically intense parts of cities, not only in New York State or in America, but all over the world, and what do you find? If it's a lively place, if it's not dying, if its windows aren't all boarded up, what you find is it's full of small enterprises. This is not an accident. It's telling you something. The cities grow in a way that we can only call organic, in the sense that one thing depends on another and another and another—they're webs of mutual support. And if they don't have that, they die away. You can't make a downtown like a one-crop plantation and get anything out of it. One trouble with having great massive things, like a convention center, smack in the middle where small things were flourishing, is that it turns an area that had diversity and variety and opportunity of many kinds in it—small kinds, but many kinds—into something resembling a one-crop place.

HB: So the effect of putting an enormous single-purpose entity within this fine network of the city core is the same as putting a huge field of a single crop in the middle of an ecology: it renders the whole thing essentially sterile, incapable of generating anything new.

JJ: That's right, and wow, watch out when a disease hits that one thing.

HB: It no longer has the resilience of the natural system that relied on the interdependence of many different ingredients.

JJ: Right. Buffalo has many examples of that. Look at all the grain-handling infrastructure. You know, all these special uses, no matter how big and impressive, they're temporary. Life is temporary.

HB: One of the common themes across your books seems to be the value of difference, of heterogeneity.

JJ: Oh, absolutely. That's where all the safety lies, where the future lies, where expansion lies—healthy expansion.

HB: You've suggested that not only is that how nature works, and how cities work—since cities are a part of nature—but that it's the way things work for humans as well.

JJ: Yes.

HB: So one thing that's hard for me to understand is how it is that for a lot of people—setting aside those of us who love cities and are drawn to the difference and the tension and the dynamism—a lot of people tend to be suspicious of the different, to want to withdraw into homogeneous communities, and avoid outsiders or even vilify outsiders. You see the ethnic conflict of the outsiders being "bad." Where does that come from?

JJ: That's right, that's their problem and it's a sad problem, but you cannot make cities to accommodate *that.*

HB: Right, but why, if this is the way of nature, and this is what's good for us—this heterogeneity and mixing—how is it that so many people end up repulsed by it, and preferring to withdraw into some homogeneous community?

JJ: Well, they've had bad experiences. And they haven't had much good experience with diversity and variety. But now, this connects with the convention center thing. The cities that *are* successful with conventions are not successful primarily because they build a hall. It's because it's the kind of a city people want to go to.

HB: Right, they don't have a lot of conventions in New Orleans because of the convention center, but because people want to come to New Orleans anyway.

JJ: That's right, and people say "Oh, hooray, we're going to have a convention in such-and-such," or "Oh, my god, we're going to go to Milwaukee"—whatever. People are looking for—people who go to conventions, people who visit other cities—are by definition looking for something different from where they live. In fact, they complain that the airports are all the same, they complain about "Oh, it's no different from being home." The great tourist attraction places are full of surprises and diversity and differences from what people may normally have.

HB: And they appreciate that when they go on vacation. Yet when they choose a place to live—I have colleagues who will come join the university as faculty, and many will choose to buy a place out in the suburbs, where it looks just like where they came from. They'll see all the same stores; it's interchangeable. And some say that's great, because it's predictable, and they know what they're getting into, and it's familiar, and it's comfortable. Others of us look at that and say, "It's sterile and lifeless, and I *want* to be surprised, I like unpredictability."

JJ: Yeah.

HB: But we seem to be in the minority. So many people are moving to the suburbs and cities are losing population.

JJ: Well, not all of them. The ones that are really healing and are liveliest are gaining population now. These things change. One thing you can be sure of is life is not going to go on the same. Every once in a while, a generation comes along that just can't stand what the previous ones did. Victorianism came to an end that way, and it's one reason so many wonderful Victorian buildings were destroyed later. There was a real hatred for Victorianism. And yet it had been the thing for several previous generations. A lot of people are more adventurous than that, they don't want just the culture that was handed down to them, and if it seems too oppressive to them and too pervading to them, they really get nasty about it. I don't think that's changed, and you can't predict when it's going to happen and what it's going to be.

HB: So at some point you think there's going to be a reaction against the suburbanization, and the malling of America?

> "You can't make a downtown like a one-crop plantation and get anything out of it."

JJ: Yes, sure there is. In fact, a lot of malls are now going out of business. Probably because there were too many of them, and because people are bored with them. You know, people get bored, and one thing that your colleagues of all kinds probably have in common is that they hate boredom, and some of them get bored sooner than others.

HB: So in time, hopefully people will recognize what the more diverse and heterogeneous environments offer, and turn back to that? And turn against the sameness and homogeneity of the suburban style of development?

JJ: You don't have to say "hopefully," it's bound to happen. It'll happen whether you want it to or not.

Cars and downtown retail

HB: You mentioned that some malls are losing business and closing. One of the other issues that's caused strong feelings in Buffalo is the loss of retail activity downtown. Some years ago, before I moved here, one of the strategies that was tried was to convert Main Street to a pedestrian mall and to build the light rail system down the center of the street and stop car traffic.

JJ: This was another imported idea that didn't arise in Buffalo. Your policy-makers saw it in some other places, and "Okay, we'll try that in Buffalo." So it didn't grow out of Buffalo, it was an applied, artificial thing.

HB: There have been proposals to reopen Main Street to car traffic again. I know you're not a big fan of cars, but do you think in this case that would be a helpful move?

JJ: I don't know Buffalo well enough to answer that in detail, but I can tell you this: The trouble with cars on a main street is not cars *per se.* In fact you have to have some for servicing and all that. The trouble is cars to which everything else is sacrificed. And how is everything else sacrificed? Well, the roads are made too wide, too hard to cross. The cars are allowed to go too fast. Too much parking is provided. Those things are not necessary for allowing cars on a main street. Disneyland out in California gives you some lessons about this. It has streetcars and other conveyances running through those little streets. They go slowly; the streets are easy to cross; the parking is all somewhere else, not cutting up the interesting places people want to be. Those are good principles for any main street that you want to be good for business. You can have cars there, but they can't be racing through. You can have the street, but it can't be unfriendly to pedestrians.

HB: We're seeing that debate played out near the edge of town, also on Main Street, where the original campus of the university is. The state transportation department came in with a plan to widen the street and smooth the traffic flow and synchronize the lights, and it was exactly the issues you're talking about: do we displace everything else to make it optimal for the cars, or do we try to maintain the pedestrian traffic and help the retail businesses with wide sidewalks and so on?

JJ: Well, that's what transportation departments do. The reason cities need so much transportation, somebody has said, is not to *move* so much, as to *exchange* things. That's what cities are all about, exchanging.

HB: And what's the implication of that for what transportation departments—

JJ: If you begin to think it's all about moving—it's like magic carpets, getting from here to there the fastest way possi-

convention center, or Buffalo's falls out of favor, look how much will fall out of favor, in what a vital place [if it's built downtown]. And you can be sure that it will. When you add up all the subsidies and tax forgiveness and destroyed things that really aren't recompensed—they never have been—it's very doubtful whether convention centers pay. Certainly not ones in ho-hum sort of towns.

HB: And it's something that a great many cities have been convinced recently that they should be using as a strategy, so we're looking at an incredible number of competitors who are expanding or upgrading their facilities at the very same time.

JJ: So expand it. You can have a convention center, but for heaven's sake, don't do it where you're destroying what innovation you do have.

HB: That gets back to Tim's initial question. If you're going to build it, against our advice, you can at least build it someplace where you're not displacing something else; build it on a parking lot or something that's abandoned.

JJ: That's right, make it an addition to Buffalo, not a displacement. Don't act as if there's a zero-sum economy in Buffalo and if you add something you've got to take something equal away. You never get anywhere that way.

The "obstructionist" label

HB: One of the problems we face when we talk about preserving what we have that's already special and we oppose projects that—

JJ: You're called against progress.

HB: That's right. We're obstructionist, we're preventing progress, we're looking backward, we're just trying to prevent people from doing anything to get things started in Buffalo, even though when they recognize that Buffalo has been inert they say, "Well, we need to do something, like build a convention center."

JJ: You need to do something—I hate to keep repeating myself—that's unique to Buffalo, that comes out of Buffalo itself. You don't want to keep acting like a company town.

HB: Again, it seems that it makes us susceptible to the charges of being obstructionist and selfishly preventing progress. Do we just put up with that, let them call us that, or do we have a way of countering it?

JJ: You put up with it, and you tell your side of things. Also, turn those arguments around. Don't be frightened by them, they're not true in the first place, and in the second place, selfishness: for goodness sake, who's going to reap any rewards from this?

HB: Largely, it seems, it would be people involved in construction, lawyers and bankers involved in making financing arrangements, for whom if the thing fails, so much the better, because then we build another one 10 years later and they profit all over again.

JJ: Sure. Show that they're being selfish. Show that they're being old-fashioned and repetitive and afraid of new and different things, and new and different ways of doing things. Why let them have all the arguments about progress and selfishness, which are specious? And don't mind if you're called names, you get thick skins. Don't be defensive, go on the attack. You have to explain why you're right, but you have to explain it aggressively.

The future

HB: I think we've covered a lot of the ground I had hoped to. To wrap up, in looking around at what you see these days—after many years of observing the world and how it works, and what things change and why they change—what gives you the most hope about the future, and what worries you the most?

JJ: The thing that gives me the most hope about the future is the young people. They don't know how hard it is to make change, or to improve things, and it's a good thing they don't know how hard it is, because they have lots of energy and they often have lots of idealism, and they work at it. By the time they've gotten tired, and they know how much effort it takes to move things a few inches, there's another generation coming along. That's what gives me the most hope. That sounds so banal, but I don't know anything as hopeful as that.

HB: And what do you find most worrisome, what makes you anxious about the future, if anything?

JJ: I suppose the things that are done out of despair, and out of hatred. When I look at the worst mistakes of city planning—to take one example, although I think this is true of any activity—I marvel at how these policies were set by people who hate cities. You can't prescribe decently for something you hate. It will always come out wrong. You can't prescribe decently for something you despair in. If you despair of humankind, you're not going to have good policies for nurturing human beings. I think people ought to give prescriptions who have ideas for improving things, ought to concentrate on the things that they love and that they want to nurture.

HB: That certainly describes our group and our feeling about the city of Buffalo.

JJ: That's right. If you have somebody who says, "Oh, Buffalo is for the birds, and you've just got to go somewhere else to learn what to do" and so on, no, that's not good, nothing good will come of that. People who see what is good about Buffalo, and there's an awful lot that is good about Buffalo—it's a wonderful place with a wonderful heritage, goodness, it's got a much better architectural heritage than Toronto does, it's got a glorious architectural heritage, just go out on the streets of Buffalo and marvel at what's there.

HB: And that's what we should be building our revival around.

JJ: That's right.

Hank Bromley teaches at the UB Graduate School of Education and is a member of Citizens for Common Sense. He can be reached at hbromley@buffalo.edu. AV

Does Buffalo need a new Convention Center?

Frequently Asked Questions:

Won't building a new convention center downtown have positive economic benefits?

No. The best net economic impact building a new convention center in the Electric District (or Mohawk site as it is referred to by the Convention and Visitor's Bureau) can have is zero. This is because the current economic value of the site chosen for the location already has a conservatively estimated economic value of $70 million (not including spin-off benefits) - exactly the same value projected by the Convention and Visitor's Bureau (CVB) to be generated by building a new convention center there. If the CVB's estimate of value turns out to be too high (and most of the studies conducted by the CVB's consultant have wildly over-estimated the economic impacts of building new convention centers), then destroying the Electric District to build a new convention center will have a net negative economic impact.

Won't building a new convention center generate new jobs downtown?

If the CVB's estimates are correct (and, again, their consultant has a history of over-estimating projections), building a new convention center at the Mohawk ramp site could generate 1200 "full-time-equivalent" (consultant speak for 2400 minimum wage, part-time, no benefits) service sector jobs. The public subsidy required to create each of these low-paying jobs is $125,000 (any cost over-runs will raise this figure). By comparison, that is more than twice the public subsidy required for each new job promised by the Adelphia project - and those jobs are guaranteed: if Adelphia does not bring in 1,500 high tech jobs averaging $30,000 a year, the community can have its subsidy back. Proponents of the Convention Center offer no such guarantee.

Don't we need a new convention center in order to compete for more conventions?

The convention industry has been in decline for years. Previous predications never materialized. *Meetings and Conventions*, the industry trade publication, has shown no pattern of growth in convention attendance. In addition, due to past positive projections, cities across the country have added millions of square feet to the convention market in recent years, with several million more expected to come on line soon. No growth in demand and a marked increase in supply has forced major convention cities such as New York, Chicago, and Atlanta to compete for the smaller conventions that Buffalo would be competing for - with more hotel rooms, more direct airline flights, and more established convention and tourism markets. So even though we would be *eligible* to compete for more conventions, it is highly unlikely that we would compete *successfully*.

But don't we need a convention center to bring visitors with all of their money to downtown?

No! The fastest growing sector of the tourism market is heritage tourism - a market that does not require a new convention center. Heritage tourists stay longer and spend more money than any other tourists - an average of $688 per visit compared with $367 for other types of travelers. Buffalo is widely regarded - across the country and internationally - as an architectural Mecca. The Darwin Martin House, for example, is projected to have an annual economic impact of over $20 million, bringing in 100,000 visitors annually - for a tiny fraction of the cost of developing a new convention center. Ironically, the CVB's proposal to build a new Convention Center would destroy a part of that very asset that people already want to come see in Buffalo - our historic architecture. In the past year alone, five major national publications touted Buffalo as a prime heritage tourist destination. Capitalizing on the heritage tourism market is a smarter, higher-yield investment that would require no new convention center. We should put our money into improving and marketing our existing buildings.

Citizens For Common Sense
11 Summer Street, Buffalo, NY 14209 ph (716) 884-3204

Does building a new convention center represent an opportunity to re-design downtown Buffalo?

The CVB's consultants have it right on one score - currently, downtown Buffalo functions much like a north-south ribbon and needs to be drawn out in an east-west direction. However, building a new convention center at the Mohawk site will only exacerbate this condition. Introducing a "big box" building adjacent to Main Street will further deaden activity in an east-west direction, further cutting off the East side from Main Street, and creating huge swaths of truck loading zones and parking areas to the east of Main Street, that will be increasingly uncomfortable and unsafe for people working and living downtown. In addition, the convention center design builds a 900' long tunnel over Ellicott Street (like the tunnel created by the library, only much, much longer), creating an extremely unpleasant and unsafe street condition along one of our major downtown routes. This would seriously undermine efforts to make downtown streets more user-friendly and to attract more people to live, work, and visit downtown.

Isn't the Electric District a blighted part of downtown and won't building a new building there be progress?

This section of downtown houses 30 businesses employing several hundred people and bringing 300,000 visitors into this part of downtown every year. Many of its buildings are subjects of Charles Burchfield paintings, and nearly all of them are exactly the type of structure that converts into highly desirable loft-style residential units and small high tech small business start-up space. With a little imagination and not nearly the financial commitment, these assets could be built on to create the kind of active, vibrant 24-hour downtown we all want.

But isn't the funding all in place for this project and won't we lose the possibility for major State investment in downtown if we don't build a new convention center?

When finally pressed for a plan for how to pay for this project, the CVB identified the following sources of funding: raising the hotel tax, \$36,000,000 - \$48,000,000; Erie County Regional Asset Fund, \$25,000,000 - 33,000,000; State of New York, 74,000,000 - 125,000,000; Federal Government, 4,000,000 - 5,000,000; City of Buffalo, 4,800,000 - 12,500,000; unidentified private sources, \$7,000,000 - \$8,000,000. Every one of these sources has publicly opposed making this level of investment. Even the hotel industry, the group the CVB claims would derive the most benefit from this investment, is unwilling to offer financial support. Consequently, there is just as much opportunity to fund other kinds of projects as there is to fund this one. We need to let our leaders know that rather than expending money and energy ramming this project down our throats, they should show true leadership and work to develop housing and business opportunities downtown so that we can have a vibrant, 24-hour downtown community.

Should we wait to see if the CVB can convince these sources to fund a new convention center?

Every day that this project is hyped as going ahead at this location, businesses do not renew their leases and move out of downtown - taking their jobs with them, and building investments are not made - allowing previously well-maintained buildings to fall apart. No positive investment - even those that were planned for the site before the announcement of this project - will go ahead until this project is taken off the table for this site.

But I am tired of seeing nothing happen, I want to see something great happen in Downtown Buffalo.

So does Citizens for Common Sense. The main reason that we oppose this project is because of what it will *prevent* from happening downtown. The \$150,000,000 that would need to be plowed into this project could develop over one million square feet of housing, retail, and office space downtown! Instead of asking the State government for \$75,000,000 for this project, why not ask them to help us create a downtown housing investment fund to get people living downtown? Instead of asking the Federal government for \$5,000,000 for a "public space" for the convention center, why not ask them for assistance in returning traffic to Main Street? Instead of asking the City for \$12,000,000, why not put that money into building and renovating our schools and libraries? Citizens for Common Sense advocates a vibrant, viable downtown that is the heart of our region, and we are committed to not just opposing destruction of the Eclectic District for a new convention center, but staying around to ensure that a vibrant, active downtown neighborhood emerges.

Citizens For Common Sense
11 Summer Street, Buffalo, NY 14209 ph (716) 884-3204

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Ted Pietrzak

Agency/Organization: Director Burchfield Penney Art Center

Address: send to my home 684 Auburn Ave
Buffalo NY 14222

Email: pietrzts@buffalostate.edu

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

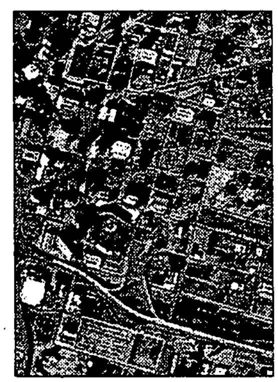
Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION

Comments:

EIS - is an appropriate + necessary process.
Future Ctr should consider location in conjunction with hotels, transportation routes and local environmental impact
GREEN Design important to me
Note: Alternatives for the existing facility should be consider - NO Casino!!! - park

▪ ALTERNATIVES



Comments:

Mohawk site seems appropriate

→ Green up down town
→ Insure art is part of the future project

▪ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

▪ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Dr George Haar President

Agency/Organization: Mason Tayler Medical

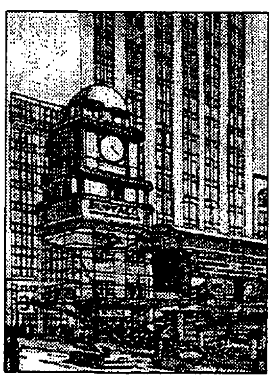
Address: 1083 Delaware Ave
Buffalo 14209
716-883-8097

Email: masontayler@worldnet.att.net (F) 716-883-8099

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:

Mohawk site is poor choice just to be near a hotel. It will destroy businesses and provide poor access for trucks. Expensive. Waterfront site is much better. Use savings to provide heated sidewalks + indoor parking

▪ ALTERNATIVES

Comments:

The site bounded by Niagra Elmwood and Huron. The site is large mostly empty and close to Delaware. Easy access for trucks parking etc. No need for major disruption to business.

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

1 lots of natural light

2 heated sidewalks

3 easy truck + highway access

4 few columns to block rooms

5 build on empty or near empty sites. This is cheaper and avoids destruction of current buildings and tax paying companies

6 outside areas for eating during summertime shows like Anaheim convention center

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

I do 14 trade shows a year Proximity to hotels is not a huge issue. Most major centers are not next to hotels New York Dallas Denver Houston New Orleans Atlanta San Francisco

NEW BUFFALO CONVENTION CENTER PROJECT

YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): ____________________

Agency/Organization: ____________________

Address: ____________________

____

____

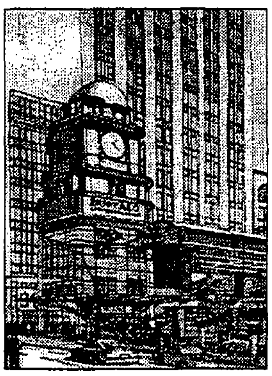
Email: ____________________

Please return this form to the sign-in desk or mail written comments to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

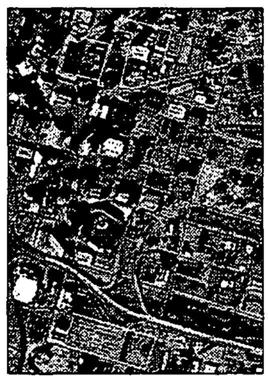
Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments: ____________________

▪ ALTERNATIVES



Comments: ____________________

■ DEVELOPMENT OBJECTIVES

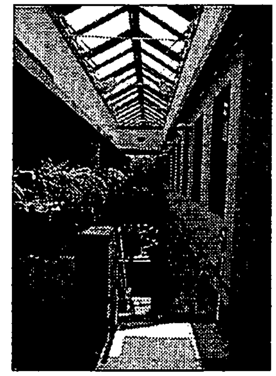
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:



1 Incorporate a second use into the building (school gym etc) to give it multiple uses for daily traffic so we can justify expense of building a new center

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Robert J. Heffern

Agency/Organization: Citizen

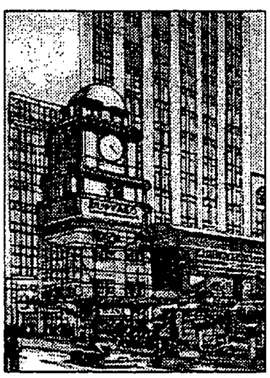
Address: 278 Paramount Pkwy
BFO NY 14223

Email: bkheff@Hotmail.com

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:

Please take no action until any consideration of a center is tied in with other plans — particularly with housing, transportation, pedestrian-friendly urban area. Cities all over the U.S. look to convention centers as a "Silver bullet." People want to go to a city because of what that city offers rather than where or what size a convention center is

▪ ALTERNATIVES

Comments:

■ DEVELOPMENT OBJECTIVES

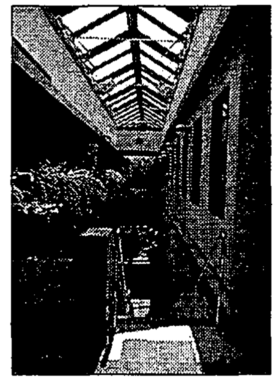
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination – BEEN THERE, DONE THAT!
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

– Don't put horse before the cart – overall strategy for downtown comes first, convention center comes later, if at all
– IF Buffalo/Niagara Region people don't use the city why should conventioneers. Need housing, retail, pedestrian-friendly zone (or at least first)

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN



Comments:

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

Do they seal off or block other development (Ex. HSBC office bldg; current convention center; Elm-Oak arterial)

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): BERT SIMON

Agency/Organization: SIMON ELECTRIC CO

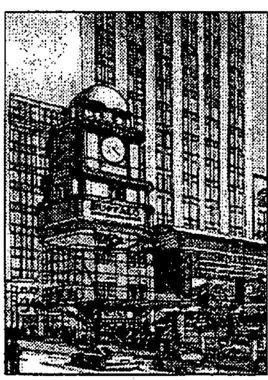
Address: 367 ELLICOTT ST.
BFLO, NY 14203

Email:

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

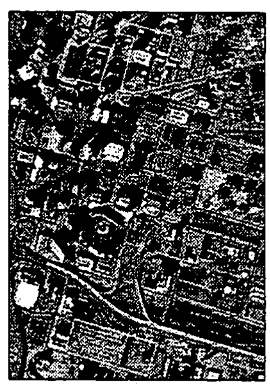
▪ PROPOSED ACTION



Comments:

I AM IN FAVOR OF TO PROPOSED SITE.
AS A MAJORITY PROPERTY OWNER & BUSINESS OWNER & DEVELOPER, WITH PROPERTY HOLDINGS IN CLOSE PROXIMITY TO THIS SITE I LOOK FORWARD TO ITS APPROVAL SO MY PROPERTY CAN BE DEVELOPED.

▪ ALTERNATIVES



Comments:

▪ DEVELOPMENT OBJECTIVES

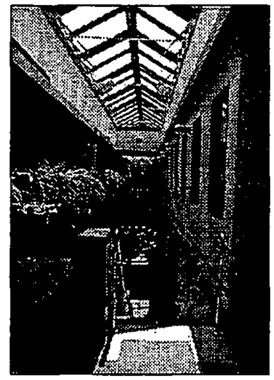
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

▪ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:



Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

02:001288_EC02_01/comments-ideas.CDR-3/13/01-GRA

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): PETER BONCORE

Agency/Organization: WNY MERCHANT GROUPS & UB SCH of [illegible]

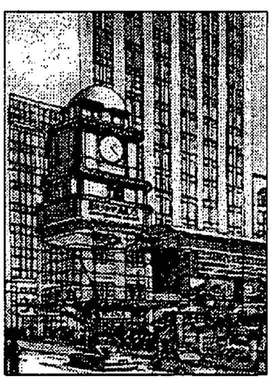
Address: 169 DURANT AVENUE
TONAWANDA, NY 14150

Email: BONCPA46USA @ NETSCAPE.NET

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:
IMPROVE THE
FACADE OF THE
CURRENT BLDG.

▪ ALTERNATIVES

Comments:

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

- HAS THE CURRENT FACILITY OPERATED AT A PROFIT?
- HAVE RETAILERS EXPANDED GROWTH AND STAYED DOWNTOWN?
- HOW MANY CITIES ATTRACT NEW GROUPS?

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): D. F. WHITLOW

Agency/Organization:

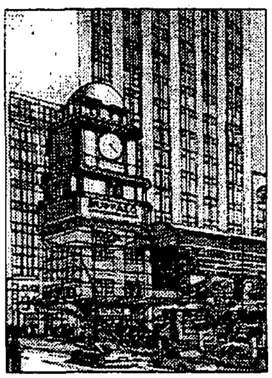
Address: 15 Glendhu
BUFFALO, NY 14210

Email: SKEETERWHITLOW@MSN.COM

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:

PROPOSED HEAD-QUARTERS HOTEL NOT NECESSARY BASED ON AVAILABILITY OF CLOSE PROXIMITY OF OTHER HOTELS.

▪ ALTERNATIVES

Comments:

TIE IN LOCAL BIG DOWNTOWN HOTELS SUCH AS ADAMS MARK FOR EXAMPLE TO LOWER COSTS.

▪ DEVELOPMENT OBJECTIVES

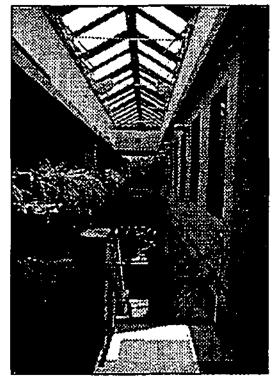
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

▪ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:



Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Chuck Reader GM

Agency/Organization: Adam's Mark Hotel

Address: 120 Church

B NY 14202

Email:

Please return this form to the sign-in desk or mail written comments to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION

Comments:

Planed in concept that any group will utilize increased space and have to use many (3-5) hotels to house ~~$2~~ up to 1200 Rooms. Hyatt attachment serves no purpose if Hyatt does not regularly and routinely give large blocks of rooms.

▪ ALTERNATIVES

Comments:

Waterfront Site is most desireable only if a headquarter convention hotel of minimum 500 rooms is ~~built~~ built.

▪ DEVELOPMENT OBJECTIVES

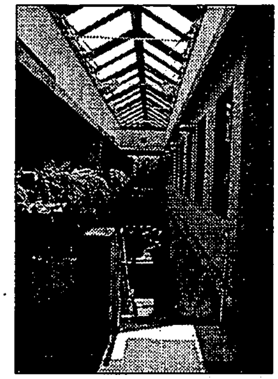
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

▪ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:



Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

02:001288_EC02_01/comments-ideas.CDR-3/13/01-GRA

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): V. Niederhoffer

Agency/Organization:

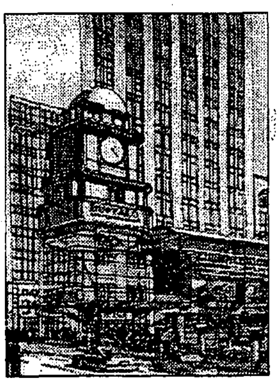
Address: 85 West Ave
Bflo, N.Y. 14201

Email:

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:

The only thing is to rehabilitate existing structures
~~Are~~ Is there a need for an expensive convention center. Why not use the money to create residential loft spaces and residential apts.

▪ ALTERNATIVES

Comments:

Is there really a need for a convention center?

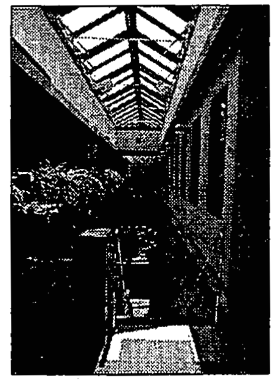
■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN



Comments:

Green design is the only way to build. We all need to get off of Niagara Mohawk

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): CHRIS ANDRLE

Agency/Organization:

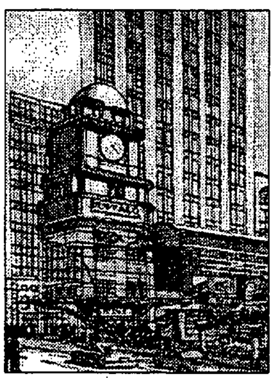
Address: 5554 JUNO DRIVE
LAKE VIEW NY 14085

Email: CHRIS@ANDRLE.COM

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

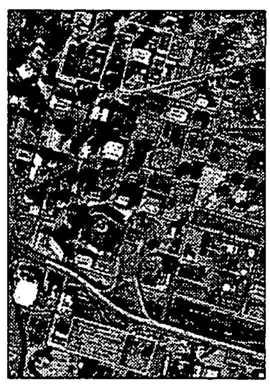
▪ PROPOSED ACTION



Comments:

IF A NEW CONVENTION CENTER IS REALLY NEEDED, THE WATERFRONT SITE IS THE ONLY ONE THAT DOESN'T HAVE A NEGATIVE IMPACT ON EXISTING ECONOMIC ACTIVITY.

▪ ALTERNATIVES



Comments:

THE MOHAWK SITE WOULD BE A MAJOR MISTAKE. BUFFALO CANNOT AFFORD TO DEMOLISH ANY MORE OF IT'S DOWNTOWN. YOU DON'T STIMULATE GROWTH OR BRING NEW RESIDENTS DOWNTOWN BY DEMOLITION OF EXISTING BUILDINGS.

DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

BUFFALO'S HISTORIC STREET SYSTEM LAID OUT BY JOSEPH ELLICOTT IN 1802 SHOULD NOT BE DISTURBED. THE WATERFRONT SITE RESPECTS THE INTEGRITY OF THE STREET SYSTEM.

ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

BUFFALO NEEDS MORE MULTI-USE BUILDINGS WITH PUBLIC SPACES. LARGE SINGLE USE PROJECTS, ESPECIALLY CONVENTION CENTERS, CREATE DEAD ZONES WHERE OTHER BUSINESES CANNOT SURVIVE.

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

THE WATERFRONT SITE IS ADJACENT TO THE HSBC ARENA, ADELPHIA PROJECT + GOBS OF SURFACE PARKING.

02:001288_EC02_01/comments-ideas.CDR-3/13/01-GRA

NEW BUFFALO CONVENTION CENTER PROJECT — YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): HARVEY HOLZWORTH

Agency/Organization:

Address: 186 STERLING AVE.
BUFFALO, N.Y. 14216
837-3054 — (Summer - Canada) 1-905-894-3984

Email: I have one?

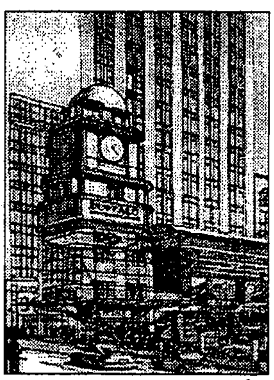
Please Put Me on your Mailing List

Please return this form to the sign-in desk or mail written comments to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

PROPOSED ACTION



Comments: * Ask * John Portman Architect - Visionary to come to Buffalo to make his own Feasability Study

I can make the arrangements
HARVEY HOLZWORTH
186 STERLING AVE.
BUFFALO, N.Y. 14216
837-3054
SUMMER — CANADA — 1-905-894-3984

ALTERNATIVES

Comments: * Location * John Portman Complex in The Block Behind the Sheas Buffalo Theatre ~~Bor~~ Bordered by Streets Tupper - Pearl - Chippewa - Franklin NOTE: Save only the Christian Science Bldg in the N.E. corner of the Block

— I know John Portman & have everything set up.

DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

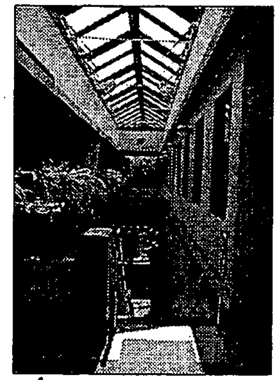
1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

Ask John Portman
Atlanta, Ga.
Architect / Visionary
1-404-614-5228
Seth Barnhardt
Office 1-404-555-1212
John Portman 404-614-5555
Judy Perry 404-220-2362

Ask John to come to Buffalo and make his own Feasability Study

ENVIRONMENTAL ISSUES/ GREEN DESIGN



Comments: Portman Architecture Lends to Green Design

* LOCATION
Theater District
* Block Behind to (West) of Shea's Buffalo Theater
Bordered by Tupper - Pearl - Chippewa - Franklin - NOTE:
* SAVE ONLY THE CHRISTIAN SCIENCE BLD
Park & Gardens on Top 3 above
Convention Center 2 Above
Parking - 1 Level Above 1 Above
Parking - Underground 1 Below
Parking - " 2 Below

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

He would consider all 12 Development Objectives +
(1) Green Design
(2) Apartment - Office (seperate) but across from each other, in the smaller Towers
(3) Deluxe High Class Shopping Stores
(4) Parking (5) Hotel (6) Convention Center
approx One Million + — (7) Restaurants
(8) Offices

02:001288_EC02_01/comments-ideas.CDR(3/22/04)GA

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): ELIZABETH KAUFFMAN

Agency/Organization:

Address: 5 ORTON PLACE
BFLO NY 14201

Email: BFLOBETH@HOTMAIL.COM

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION

Comments:

Either expand the current Conv. Center up - from 2 Story to 3 or more - or No Action

Buffalo has many uses for $151 million - the Canal terminus - Historic Industrial trail, downtown housing, etc -

We don't need a new Convention Center until these needs are met -

Something for tourists to do!!

▪ ALTERNATIVES

Comments:

Covering any more streets or altering the already skewed traffic plan would be unreasonable -

Destroying any more historic + usable building is beyond belief - Too much has already been destroyed in this beautiful city -

■ DEVELOPMENT OBJECTIVES

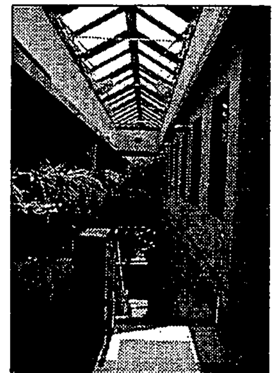
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:



All new building in this area should be built green - it's the smart thing to do -

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): JOHN W. BRAY

Agency/Organization:

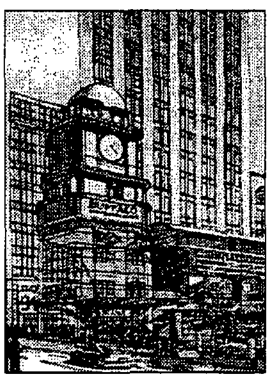
Address: 1331 CREEK RD
ATTICA, N.Y 14011

Email:

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:

RETAIN CURRENT FACILITIES AS IS

▪ ALTERNATIVES

Comments:

ADD ON TO CURRENT FACILITIES

REFURBISH CENTRAL TERMINAL - IT HAS PLENTY OF ROOM INSTEAD OF SQUEEZING

DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

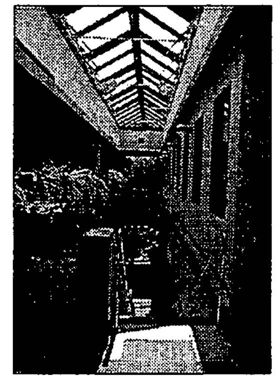
1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

TAX LOSS ~~OF~~
PROPERTY TO BE
BULLDOZED

ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:



Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

02:001288_EC02_01/comments-ideas.CDR-3/13/01-GRA

HART HOTELS INC.

Gateway Park • Suite 101
Rossler and Dingens Streets
Buffalo, New York 14206
Telephone: 716/893-6551
FAX number: 716/893-6517
WEB: www.harthotels.com

March 27, 2001

Mr. Daniel Castle
Ecology and Environment Inc.

Re: New Buffalo Convention Center

Dear Mr. Castle,

Please accept this letter in support of the construction of a new downtown Buffalo Convention Center. The timing for a new center is perfect. The convention and trade show industry has seen enormous growth in recent years. Specifically, the demand for modern convention and trade show space within New York State and the northeast region is at an all time high. Buffalo is poised to capture more than it's fair share of this demand with a new modern meeting facility. Across the nation vibrant urban centers can point to successful convention center operations as a key ingredient in the formula for sustained economic prosperity. Downtown Buffalo has an underutilized infrastructure of hotel rooms, restaurants, theatres and other attractions that will compliment the convention business. Generating demand for these businesses by conventioneers helps these businesses succeed with minimal public assistance.

I believe the Mohawk Site is the best location for the new center. This site will provide a connection to the existing Hyatt Hotel as well as good proximity to other downtown hotels. On-site parking can be achieved at this site while providing convenient access for trucks, busses, cars and taxis. This location will also provide excellent pedestrian access and a short walk to the theatre district and Chippewa Street. Finally, the site is sufficient to accommodate the proposed building and future expansion with ample land for nearby private development.

Our company is the largest hospitality company in Western New York. We currently own and operate five area hotels and associated restaurants and meeting space. A sixth area hotel is in development and expected to open next summer. When complete we will manage 1000 guestrooms and employ over 600 people. We are proud of our community and believe we have many assets that are unknown to most that live outside our region. We need more visitors to our community to enjoy these assets while spending new dollars in our community during their visit. These visitors can be delivered with a new convention center. As stated in the C.H. Johnson study if we do nothing our existing convention business will erode due to the non-competitive nature of the existing center. We've already witnessed the onset of this erosion. We advocate the investment and promotion of our industry, in the form of a new Convention Center, knowing it has and will continue to play a big part in the future success of our community.

Sincerely,

David P. Hart
President & CEO

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Julie Shoett

Agency/Organization: Adam's Mark Convention Manager

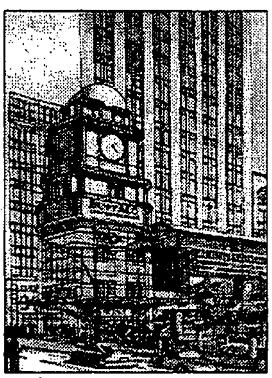
Address: 120 Church St.
Buffalo NY ~~[illegible]~~ 14202

Email: JShoett@Adamsmark.com

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

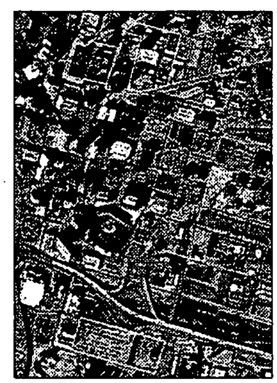
▪ PROPOSED ACTION



Comments:

I feel is a good idea to Refinish buildings that exsist not ~~[illegible]~~ Abandon them. We have too many empty buildngs in the area.

▪ ALTERNATIVES



Comments:

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

We would need extensive sales and Marketing Campaign to push products.

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

I think the Green Design is a good idea and very good. Too draw a certain amount of environmental Companies to examine the facilities

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

A better waterfront location /ex. by the Pier. We have wasted the waterfront for years

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Kevin Verrall

Agency/Organization: Hampton Inn West Seneca

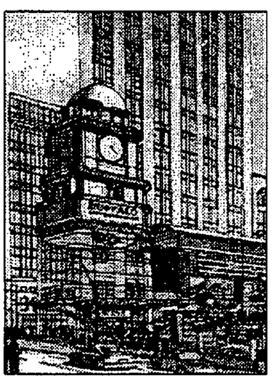
Address: 1750 Ridge Rd.
West Seneca NY 14224

Email:

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:

Why did we hire consultants to do a Study and then not proceed with their recommendations. They Suggested the Mohawk Site. Why are we even debating this? It is the best site and will meet all of the objectives. Don't Waste Money on

▪ ALTERNATIVES

Comments:

consultants and then not do what they recommend doing! The Mohawk site is the Recommended site! Build at the Mohawk Site. We have been dragging our feet for far to long.

Thank You
Kevin Verrall

▪ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

▪ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Kevin Kuchta

Agency/Organization: Director of Mkg - Adam's Mark Hotel

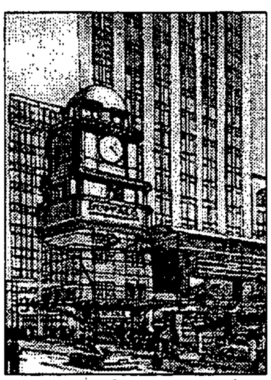
Address: 120 Church St. Buffalo, NY 14202

Email: kkuchta@adamsmark.com

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:

I am in full support of a New Buffalo Convention Center however if A Center is built more than one existing hotel property must support it - You have to make a definitive decision - to get in or get out of the Convention & Conference business - Be prepared for continued economic downturn downtown if you do not build a new center

▪ ALTERNATIVES

Comments:

Capture downtown synergy — Build downtown now!

■ DEVELOPMENT OBJECTIVES

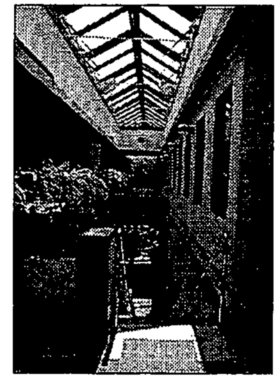
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:



Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

1) Proximity to other tourism & convention amenities -

2) Refer to Above

02:001288_EC02_01/comments-ideas.CDR-3/13/01-GRA

NEW BUFFALO CONVENTION CENTER PROJECT

YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): RYAN PIERCE

Agency/Organization:

Address: 325 BRYANT ST
BUFFALO, NY 14222

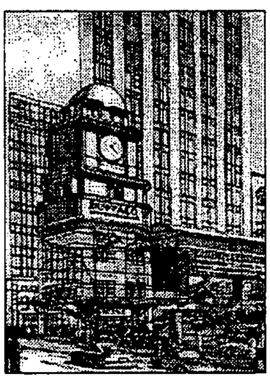
Email: RCPIERCE@YAHOO.COM

Please return this form to the sign-in desk or mail written comments to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

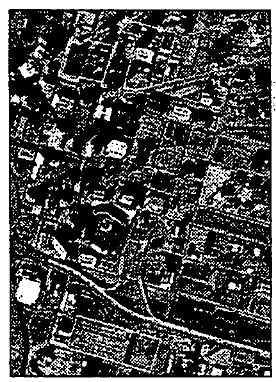
▪ PROPOSED ACTION



Comments:

DO NOT SELECT THIS SITE - (MOHAWK) IT WOULD REQUIRE MUCH TOO MUCH DEMOLITION, INFRASTRUCTURE WORK, AND DESTRUCTION OF URBAN FABRIC

▪ ALTERNATIVES



Comments:

GO WITH WATERFRONT SITE - IT IS CLEAR, OPEN READY TO GO, A CONVENTION CENTER AT THAT SITE WOULD BE VERY COMPATIBLE WITH OTHER LARGE USES IN THE AREA HSBC ARENA, HSBC BANK, ETC.

▪ DEVELOPMENT OBJECTIVES

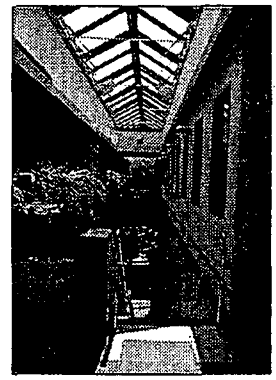
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

▪ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:



Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

02:001288_EC02_01/comments-ideas.CDR-3/13/01-GRA

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): William A. Lindner

Agency/Organization: citizen

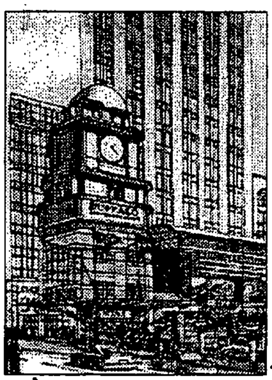
Address: 91 Plymouth Ave
Buffalo, N.Y. 14201
H: 885-2947 W: 885-2124

Email:

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

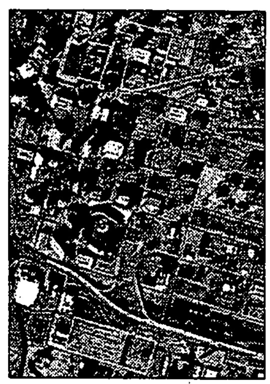
▪ PROPOSED ACTION



Comments:

Mohawk St. Site is unacceptable due to relocation & demolition of existing businesses and buildings as well as disruption of downtown street pattern.

▪ ALTERNATIVES



Comments:

improve existing Center by building front on existing lot; using adjacent vacant land (Court St) and changing Pearl St facade; recreate (as possible) destroyed street scape (Mohawk St),

▪ DEVELOPMENT OBJECTIVES

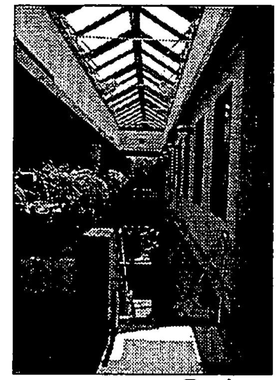
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

▪ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:



as green friendly as possible THIS IS NOT ACCOMPLISHED BY RAZING and LAND FILLING DOZENS OF BUILDINGS

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

02:001288_EC02_01/comments-ideas.CDR-3/13/01-GRA

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): ______________________

Agency/Organization: ______________________

Address: ______________________

____

____

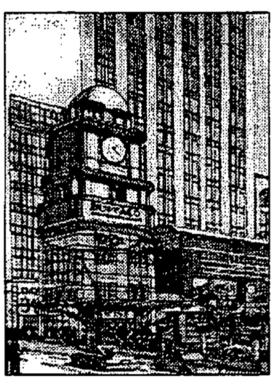
Email: ______________________

Please return this form to the sign-in desk or mail written comments to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:

the need for a 'larger, newer, brighter' convention center is debatable but the need to use the WATERFRONT as the center of tourist attraction is not debatable. Seattle, NYC, Baltimore, CLEVELAND - to site a few examples - all use WATER as the initial attraction and build from over

▪ ALTERNATIVES

Comments:

the Waterfront is an acceptable alternative and the only site with proven success in other cities

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

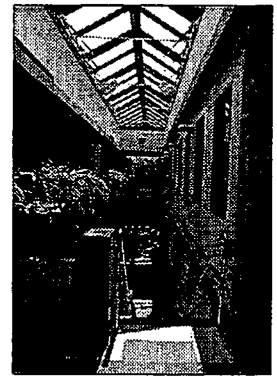
1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

~~Do you~~ feel there are additional objectives that should be ~~considered in the~~ evaluation of alternatives? If so what are they?

(→ cont) There. to tear down existing and possible re-use areas to make a bldg that may well out live its usefulness in a decade is short sighted (though very "Buffalo-like"). We need to build up not tear down

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:



Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Christian Charnock

Agency/Organization:

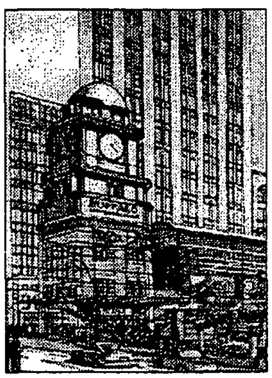
Address: 911 Hillview Dr
Clarence, NY 14031

Email: ~~Christian E~~ christiancharnock@hotmail.com

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:

- will there be a front door, a definitive entrance?
- will the exterior design reflect and glorify the architectural history of Buffalo
- will it promote or inhibit 24 hour, seven-day pedestrian activity downtown

▪ ALTERNATIVES

Comments:

- On the waterfront site, is there a chance of running into old erie canal terminals or old foundations to buildings?
- are there any convention centers that have mixed-uses, and what are the possibilities for a mixed use convention center

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

- ~~If~~ To use green design would help create a national buzz about Buffalo. It would be a great opportunity to show a city in change, from a rust-belt brownfield city, to a experimental cutting edge city of technology If done right it could help start the national trend toward green design.

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

A site should be determined that will use up the most parking lots space. Blank parking lots detract so much from the beautification of downtown.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): John Fell

Agency/Organization: resident of Buffalo

Address: 267 Babcock St, Apt. A
Buffalo, NY 14210

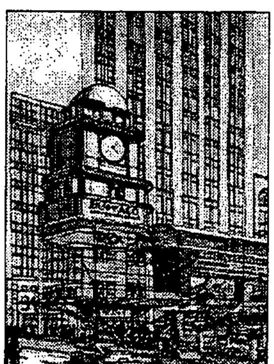
Email: felljohn@hotmail.com

Please return this form to the sign-in desk or mail written comments to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments: (1) Big black buildings are problematic for the centers of pedestrian friendly downtown areas

(2) Need a comprehensive vision for downtown which ties together a multitude of uses such as office, residential, retail + other commercial.

(3) This development would likely further choke downtown by blocking streets + disrupting pedestrian flow as well as the current urban fabric.

▪ ALTERNATIVES

Comments: Currently, there is a glut of convention centers (CC) + CC expansion projec ~~are~~ underway in the U.S. Most fail to improve the commercial areas around them. We need to think regionally and let the City of Niagara Falls use their international prominence to lure the convention ~~m~~ market

*Buffalo should add residents + streetscape improvements to the "Electric District" to revitalize + create a vital mixed-use neighborhood.

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

- Consider how a mixed-use neighborhood would add a 7 day/week 24 hour vitality to downtown. This would strengthen the 500 block of Main St. rather than having an occasional throng of people but a mostly dead space along our most important downtown street.

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

Good idea but does not ameliorate the problem of the monolithic building. Also, $150-200 million could be used in better ways if we choose to be creative.

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

- Which site is the least disruptive from an Urban Design perspective.
- Consider the dramatic increase of convention space in recent years with the stagnant growth of conventioneers.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Mark Hogan

Agency/Organization: Studio Arena Theatre/downtown resident

Address: 765 Main st #4
Buffalo NY 14203

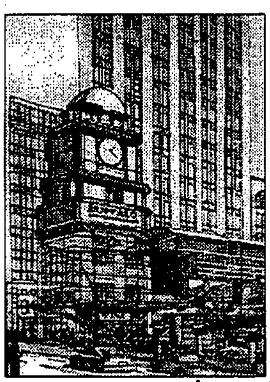
Email: markhogan@crosswinds.net

Please return this form to the sign-in desk or mail written comments to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:

Terrible - typical of late 1960s or 1970s "magic bullet" type development that proposes to solve huge, complex problems by spending an obscene amount of money

▪ ALTERNATIVES

Comments:

If anything is to be done at all (and I really question the need), the waterfront looks best - with Adelphia, the Arena and a transportation center in the Aud, it develops a critical mass.

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

What is the best use for $150 million in downtown Buffalo? Is there another use that would be better than a convention facility?

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

I do not think any design that requires large scale demolition could be considered "green". The amount of embodied energy in the existing buildings that are demolished would far exceed the energy saved in a green building

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

Traffic, conservation of historic resources and streetscapes, building critical mass of development, creating a place for the Convention Center in a master plan.

02:001288_EC02_01/comments-ideas.CDR-3/13/01-GRA

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Willard A Genrich, JR

Agency/Organization: Northern Light Development Co

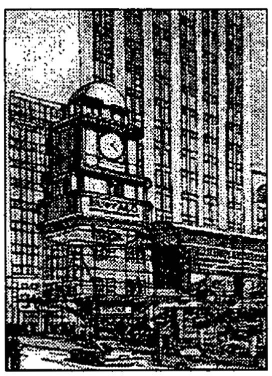
Address: 4287 Main Street
Amherst NY 14226

Email: NLDCo @ AOL - Com

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

■ PROPOSED ACTION



Comments:

Mohawk Ramp site best links downtown amenities and presents at least 3 new opportunities for International Calaber hotels to be developed; "Green Design" criteria should be followed. Emphasis Center as "Trade" as well as Convention Center

■ ALTERNATIVES

Comments:

The best decision is the right decision. The second best decision is no decision. The worst decision is to make no decision at all which is what "Citizens for Common Sense" advocate

■ DEVELOPMENT OBJECTIVES

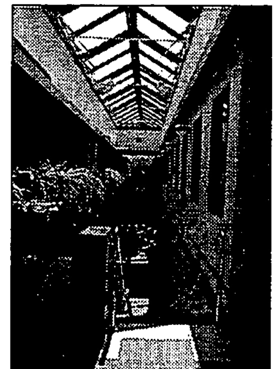
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

Take direction as firmly as possible as quickly as possible inasmuch the presently on-going re-hashing of alternatives projects & WNY image as being indecisive and divided in ~~purp~~ purpose

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN



Comments:

Buffalo Energie sources of wind and electric should be included in open design with "high tech" art themes to emphasis Buffalo's history and future. This will contrast nicely with historic architecture in downtown to provide a nationally unique blend of both

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

None Except

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): B. Huber

Agency/Organization:

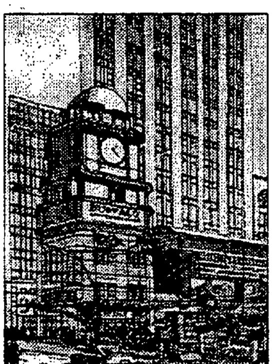
Address: 325 Raymont Blvd
Amherst 14226

Email:

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

■ PROPOSED ACTION



Comments:
Mohawk site
is the way to
go —
& then get
going on promoting
Buffalo & surrounding areas +
as of now we have NO real
publicity or promotionals for
visitors - let alone conventions
Get rid of the obstacles - city
politicians, the union's stranglehold
& the state's exhorbitant taxes.
Buffalo has a long history of choosing the
wrong path!

■ ALTERNATIVES

Comments:

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

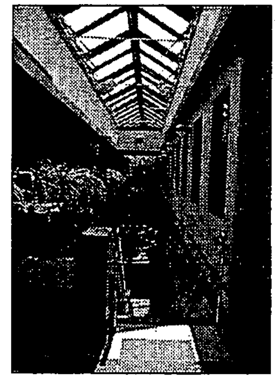
1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

Getting these petty politicians to work together is the only way we'll accomplish any of the lofty but doable goals listed above — It's probably too much to ask of our "leadership" — they will always put themselves before the good of the community!

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:



Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

02:001288_EC02_01/comments-ideas.CDR-3/13/01-GRA

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Lynda Schneekloth

Agency/Organization:

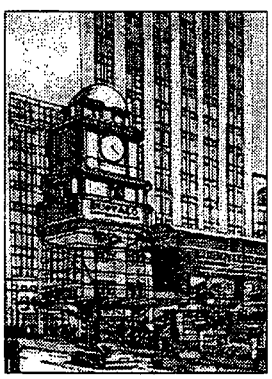
Address: 601 West Ferry St
Bflo NY 14222

Email: lhs1@ap.buffalo.edu

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:

▪ ALTERNATIVES

Comments:

Basic Comments
① Do not enlarge existing convention center — focus on conferences of this size
② Improve and "open up" existing center — facades, access, radial street, etc.
③ Green - yes!

→

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

The rationale: people come to convention because of the city the convention is in — Let's improve the city so people want to come to Buffalo!

Be the best midsize convention center possible —

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Patrick McNichol

Agency/Organization:

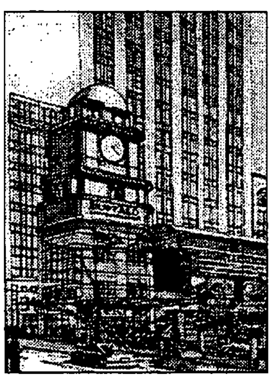
Address: 55 Baynes St
Buffalo, NY 14213

Email: bm688@scn.org

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

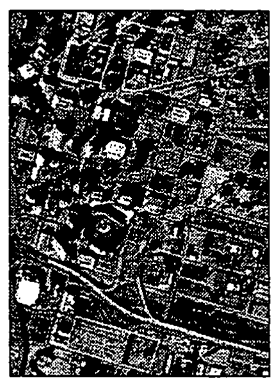
Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:
Economic impact needs to be explained in detail. Preferably have two or three estimates from different sources.

▪ ALTERNATIVES



Comments:

▪ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

▪ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): E. EDWARD DEUTSCHMAN

Agency/Organization: CITIZENS REGIONAL TRANSIT CORP.

Address: PMB 303 5330 MAIN ST

WILLIAMSVILLE, NY 14221

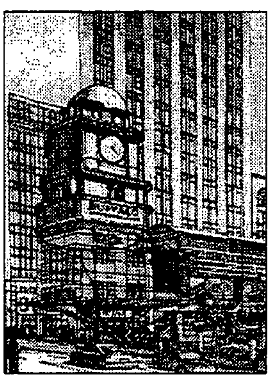
Email: crtc@juno.com

Please return this form to the sign-in desk or mail written comments to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

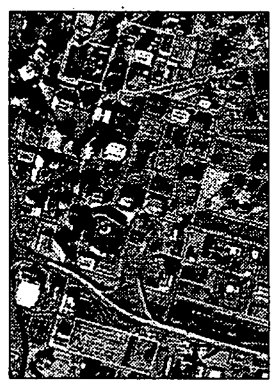
▪ PROPOSED ACTION



Comments:

IT IS NOT IN THE BEST INTEREST OF THE CITY TO DESTROY THE BUILDINGS & BUSINESSES IN THE "ELECTRIC DISTRICT" FOR A MONEY LOSING PROPOSITION LIKE THIS. BUILDING A BIGGER CONVENTION CENTER WILL PUT BUFFALO IN A HIGHER LEAGUE THE LIKES OF WHICH WE WILL NOT BE ABLE TO COMPETE WITH. LET'S REHABILITATE THE BUILDINGS IN THE "ELECTRIC DISTRICT" FOR APARTMENTS LOFTS,

▪ ALTERNATIVES



Comments:

CONDOS, ETC. WE NEED PEOPLE LIVING DOWNTOWN. MORE PEOPLE THAN EVER BEFORE HAVE EXPRESSED INTEREST IN LIVING DOWNTOWN IF AFFORDABLE PLACES WERE AVAILABLE.

WE DONT NEED A NEW CONVENTION CENTER IN ANY OF THE ALTERNATIVE LOCATIONS.

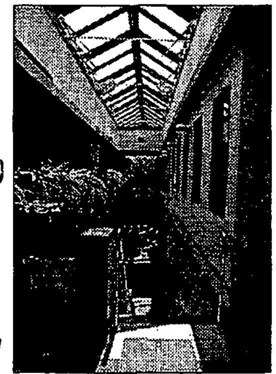
DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

ENVIRONMENTAL ISSUES/ GREEN DESIGN



Comments:

LET'S REHAB THE EXISTING CONVENTION CENTER AND MAKE IT MORE ENVIRONMENTALLY FRIENDLY THROUG GREEN "REDESIGN", ENLARGE THE EXISTING STRUCTURE, WHEN THE CURRENT BUILDING WAS PROPOSED IN THE EARLY 70'S, A BIG SELLING POINT WAS THE ABILITY TO ENLARGE IT.

THE PEARL ST. SIDE OF THE CURRENT CENTER IS LIKE A BERLIN WALL SEPARATING IT FROM MAIN ST. DO WE NEED ANOTHER "BIGGER WALL" AND TUNNEL ON THE ELM ST SIDE OF MAIN

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): ROBERT DUNFORD

Agency/Organization: none

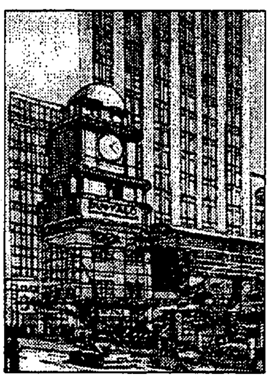
Address: 3442 MAIN ST
BUFFALO NY 14214

Email: none

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:

This and the public involvement are clear and very reassuring.

▪ ALTERNATIVES

Comments:

~~It appears~~. This poster is a little weak; It does allow an overview of the 3 sites being considered (as well as nothing) but seems limited in what might be done after a site is selected.

Since the sites are so different it appears that the shape will drive the design

▪ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

▪ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

The issues and opportunities presented are very interesting and exciting. It could be the most important parts of the process.

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

a true assessment of the disadvantages of each site must be done. For example the Mohawk site eliminates at least 600 parking sites, although the new Center will have 1200 parking sites, they will not always be available. The loss of 600 sites will impact the City somewhere, and we should know where

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Cynthia Van Ness

Agency/Organization:

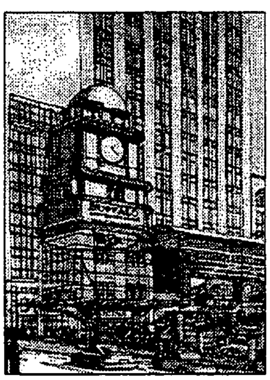
Address: 464 Norwood Ave
Buffalo NY 14222

Email: bettybarcode@yahoo.com

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

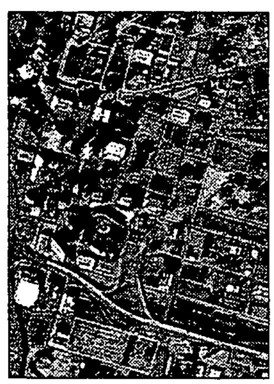
■ PROPOSED ACTION



Comments:

This new center is one of the worst possible things that we can do to downtown Buffalo. It will displace an existing economy ~~that~~ with higher-wage, skilled jobs than the part-time, low wage jobs associated with convention centers. It will destroy sturdy urban commercial architecture that is quickly becoming an endangered species

■ ALTERNATIVES



Comments:

If you must build it, build it on vacant land. The Lehigh Valley site is ideal.

DEVELOPMENT OBJECTIVES

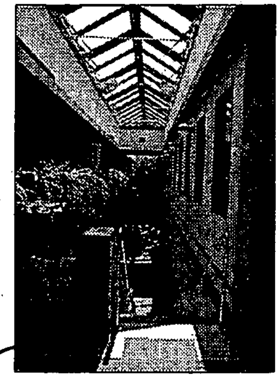
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

Downtown's need for 24 hour residents (the new center would destroy prime buildings for loft conversion)
Downtown's need for an intact, fine-grained, pedestrian-scaled streetscape (big boxes are the antithesis of this)
Downtown's need for multi-use buildings (the new center is monouse)

ENVIRONMENTAL ISSUES/ GREEN DESIGN



Comments:

The greenest design is one that retrofits or reuses an existing building rather than abandoning one and building another and demolishing several others. This is the epitome of wasteful design, no matter how many compact fluorescents you install in the new building.
It is hypocrisy to talk about "green" buildings that require their predecessors to be sent to landfills.

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): STUART HUNT

Agency/Organization: HUNT COMMERCIAL REAL ESTATE CORP

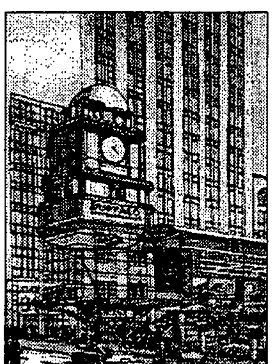
Address: 403 MAIN ST
BUFFALO, N.Y. 14203

Email:

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

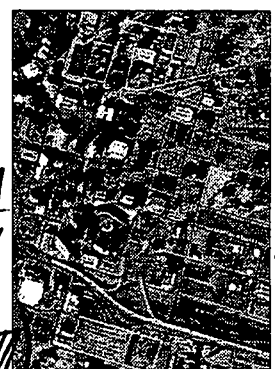
Written comments must be postmarked by April 24, 2001.

■ PROPOSED ACTION



Comments: Construct a new 400 000 # Convention Center on the so-called Mohawk - Ellicott Washington Street site!! This Mohawk site is ideally situated between the waterfront and the Theatre District and has the existing Hyatt Hotel already there! It is close to what retail we have and will definitely stimulate more retail.

■ ALTERNATIVES



Comments: There are no alternatives to building a new Convention Center on the Mohawk site!!

■ DEVELOPMENT OBJECTIVES

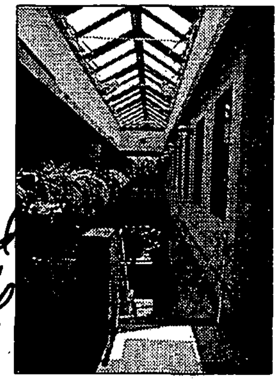
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

When people talk about preserving old buildings as a reason not to build a new Center on the Mohawk site they overlook the fact that many buildings in that location have long ago outlived their usefulness and are functionally and economically obsolete and will continue to deteriorate until condemnation foreclosure or bankruptcy sweep them away.

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN



Comments:

When that blue-ribbon Committee studied all of the possible alternatives for a New Convention Center and after thousands of man-hours recommended the Mohawk site the new Convention Center construction should already be underway. In the meantime the property owners in that area cannot sell or lease their properties yet must pay taxes utilities maintenance. This is confiscation!

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): MILITELLO MICHAEL

Agency/Organization: BIJOU GRILLE + MRM INC.

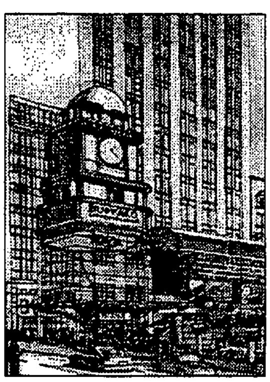
Address: 643 Main ST BFLO NY 14202

Email: MRM1500@AOL.COM

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

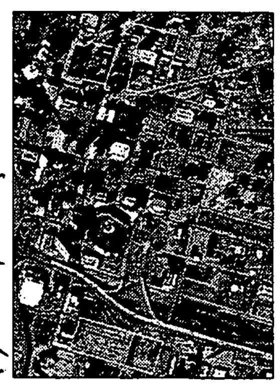
PROPOSED ACTION



Comments:

CONSOLADATE OUR ATTRACTIONS IN THE ENTERTAINMENT DISTRICT. the Mohawk SITE. Growth in this area Needs support. to continue to develop our resorces with this area to build on what is our central entertainment + Cultural district Makes sense. If we take this center to the water front it will take 5-10 YRS to build the collateral entertainment + support structure

ALTERNATIVES



Comments:

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

02:001288_EC02_01/comments-ideas.CDR-3/13/01-GRA

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): B. Beth Cohen, Ph.D.

Agency/Organization: I work at UB but I'm here representing myself.

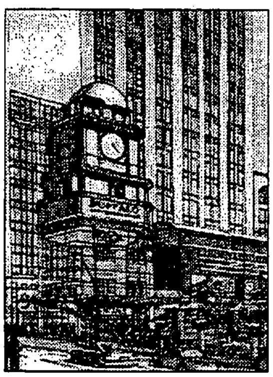
Address: 351 Parkside Ave.
Buffalo, NY 14214

Email: cohenb@buffalo.edu

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

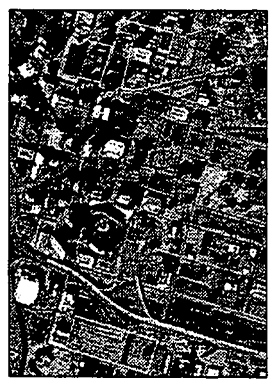
PROPOSED ACTION



Comments:

I think the proposed action (building a new center on the Mohawk site) is a big mistake and shouldn't be taken. Although I am not a member of Citizens for Common Sense, I agree with their analysis and their concerns. I think the proposed new convention center will not help Buffalo, and in fact will hurt Buffalo.

ALTERNATIVES



Comments:

I think the best alternative is not to build a new center. It might be ok to spend a little money renovating the current center, but if any expansion takes place, it should be up - i.e., don't expand the footprint. The next best alternative if it's not possible to deter you from building a new center is to put it on the waterfront site.

▪ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

Ditch objective #1. It's a flawed assumption that pulls for a biased inquiry and result.

▪ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

Green design is a great idea. Any renovation or new construction should use green design principles. One of the biggest environmental problems is overuse of cars. Rather than increasing parking, instead you should build a metrorail link directly to the airport!

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

- Economic impact on the city, especially the east side
- Environmental impact of re-siting the center
- Impact on social infrastructure of area residential neighborhoods.

- Does the information Ecology & Environment intends to base the study on address the real costs and benefits of the proposed project?
- Does it account for what's lost in tearing down 35-40 buildings on the Mohawk Site/Electric District?
- Do they even know how much economic activity is already being generated there?
- Are they comparing this project to alternative strategies for developing that site (e.g., conversion of existing stock to housing and small business, with moderate-scale infill construction)?
- How will the proposed project and associated demolition affect the prospects to get more people living downtown?
- Will it promote or inhibit 24-hour, seven-day pedestrian activity downtown (what is its trip-generation per square foot, and how evenly is it distributed)?
- What is the value of Buffalo's unique architectural heritage?
- What is the impact on the urban fabric of placing a monolithic, single-use facility of this size within the downtown core? Is there a feasible reuse plan in place for the current convention center?
- Are they comparing the economic impact to other ways of investing $151 million in downtown?
- What is the cost per job created, and per dollar of wages created?
- What is the relative risk of spending it all on one big project vs. a number of independent smaller projects?
- Do the projections of increased convention business due to a new and bigger center take into account the projections by *Tradeshow Week* for a 25% increase in the capacity of competing facilities by 2005, and an increase of only 4% in attendance (plus the latest data showing a massive *drop* in planned convention attendance nationally this year)?
- Do they take into account the difficulty of attracting conventions here during the colder months of the year?
- And do they take into account the convention business now being attracted by the Adam's Mark and the new Clarence Convention Center?
- Is the assumed number of average hotel-room-nights per meeting attendee borne out by the experience of similar cities?
- Are they looking comprehensively at how accurate projections have been of increased business after building new centers in other cities?
- Are they looking at the accuracy of previous projections in *this* region, i.e., the projections on which the current center was based, and those made for the Niagara Falls convention center?
- Where convention attendance actually has increased, was there in fact a related increase in retail and other economic activity, and how much?
- Assuming we do attract more large meetings, is there a plan for providing hotel rooms, given that the existing downtown hotels are already at capacity in the summer, when we would draw the bulk of our convention business?
- Who is going to invest privately in a new convention hotel given the likely low occupancy in the winter?
- Will we then have to, like many other cities, build a publicly funded hotel along with the convention center, and how much will that add to the project's cost?

I believe all of these questions, as presented in last week's Artvoice, must be considered in the draft EIS.

B. Beth Cohen

B. BETH COHEN
351 PARKSIDE AVE.
BUFFALO, NY 14214

▪ DEVELOPMENT OBJECTIVES

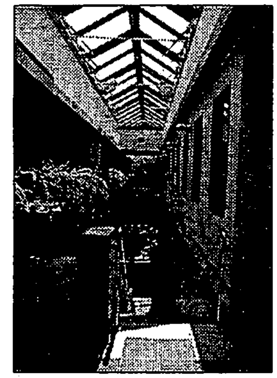
The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

(1) WHETHER RENOVATING THE CURRENT CENTER, OR BUILDING A NEW ONE (NOT ON THE MOHAWK SITE), ALL POSSIBLE STEPS SHOULD BE TAKEN TO MINIMIZE THE IMPACT UPON THE NATURAL ENVIRONMENT BOTH DURING CONSTRUCTING AND IN THE DAY-TO-DAY OPERATION AFTER CONSTRUCTION. USE GREEN DESIGN TECHNIQUES (SEE TOP RIGHT).

▪ ENVIRONMENTAL ISSUES/ GREEN DESIGN



Comments:

I WOULD LIKE TO SEE EITHER THE RENOVATED OR NEW CENTER EMPLOY GREEN DESIGN TECHNIQUES SUCH AS PASSIVE SOLAR ENERGY, USE OF NON-TOXIC BUILDING MATERIALS, AND SO FORTH.

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

- ECONOMIC IMPACT TO CITY AS A WHOLE
- ENVIRONMENTAL IMPACT IF CENTER IS RE-SITED
- IMPACT ON SOCIAL INFRASTRUCTURE OF AREA RESIDENTIAL NEIGHBORHOODS

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): GEORGE DILLMANN

Agency/Organization:

Address: 351 PARKSIDE AVE.
BUFFALO, NY 14214-1960

Email: GDILLMANN@JUNO.COM

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

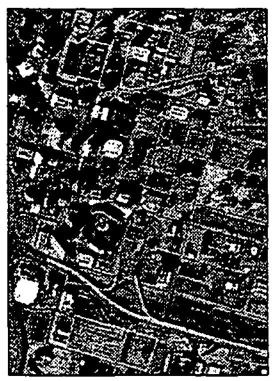
Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION

Comments:

I DO NOT THINK BUFFALO IS BEST SERVED BY A NEW CONVENTION CENTER ON THE MOHAWK SITE. (SEE ATTACHED FOR QUESTIONS I WOULD LIKE CONSIDERED IN THE DRAFT EIS.)

▪ ALTERNATIVES



Comments:

I MUCH PREFER THE WATERFRONT SITE FOR A NEW CONVENTION CENTER, IF IT IS CONCLUDED THAT A NEW CENTER IS NECESSARY (SEE ATTACHED).

I BELIEVE ALL OF THESE QUESTIONS, AS PRESENTED IN THE RECENT ISSUE OF ARTVOICE, MUST BE CONSIDERED IN THE DRAFT EIS.

- Does the information Ecology & Environment intends to base the study on address the real costs and benefits of the proposed project?
- Does it account for what's lost in tearing down 35-40 buildings on the Mohawk Site/Electric District?
- Do they even know how much economic activity is already being generated there?
- Are they comparing this project to alternative strategies for developing that site (e.g., conversion of existing stock to housing and small business, with moderate-scale infill construction)?
- How will the proposed project and associated demolition affect the prospects to get more people living downtown?
- Will it promote or inhibit 24-hour, seven-day pedestrian activity downtown (what is its trip-generation per square foot, and how evenly is it distributed)?
- What is the value of Buffalo's unique architectural heritage?
- What is the impact on the urban fabric of placing a monolithic, single-use facility of this size within the downtown core? Is there a feasible reuse plan in place for the current convention center?
- Are they comparing the economic impact to other ways of investing $151 million in downtown?
- What is the cost per job created, and per dollar of wages created?
- What is the relative risk of spending it all on one big project vs. a number of independent smaller projects?
- Do the projections of increased convention business due to a new and bigger center take into account the projections by *Tradeshow Week* for a 25% increase in the capacity of competing facilities by 2005, and an increase of only 4% in attendance (plus the latest data showing a massive *drop* in planned convention attendance nationally this year)?
- Do they take into account the difficulty of attracting conventions here during the colder months of the year?
- And do they take into account the convention business now being attracted by the Adam's Mark and the new Clarence Convention Center?
- Is the assumed number of average hotel-room-nights per meeting attendee borne out by the experience of similar cities?
- Are they looking comprehensively at how accurate projections have been of increased business after building new centers in other cities?
- Are they looking at the accuracy of previous projections in *this* region, i.e., the projections on which the current center was based, and those made for the Niagara Falls convention center?
- Where convention attendance actually has increased, was there in fact a related increase in retail and other economic activity, and how much?
- Assuming we do attract more large meetings, is there a plan for providing hotel rooms, given that the existing downtown hotels are already at capacity in the summer, when we would draw the bulk of our convention business?
- Who is going to invest privately in a new convention hotel given the likely low occupancy in the winter?
- Will we then have to, like many other cities, build a publicly funded hotel along with the convention center, and how much will that add to the project's cost?

George Dillmann

GEORGE DILLMANN
351 PARKSIDE
BUFFALO, NY 14214-1960

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Les Hoffman

Agency/Organization:

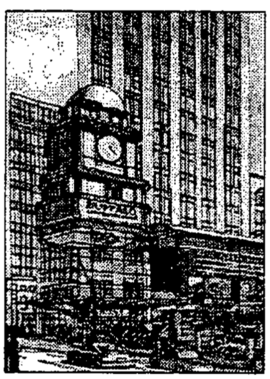
Address: 460 Norwood Av
Bflo 14222

Email: LESHOFFMAN@YAHOO.COM

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

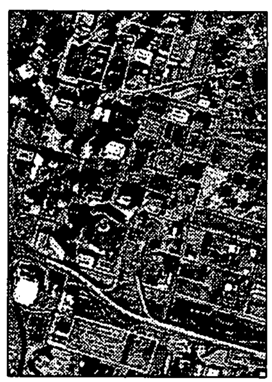
▪ PROPOSED ACTION



Comments:

I think the ROI for a new convention center does not justify the expense.
I would like to see the current Conv. Center razed + the radial street plan restored.
Copying other cities is a sure formula for mediocrity or failure.

▪ ALTERNATIVES



Comments:

Again, ~~this~~ any investment in alternatives brings business 50-100 days per year. The economic impact is not worth it. Buffalo is not a destination city. Let's support regionalism - promote tourism + convention in Niagara Falls.

▪ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

▪ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

02:001288_EC02_01/comments-ideas.CDR-3/13/01-GRA

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Valerie Dunne

Agency/Organization:

Address: 168 Norwood Ave
Buffalo, N.Y. 14222

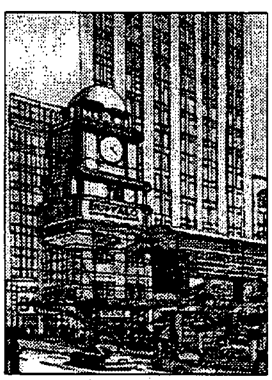
Email: barkloud @ a1com.net

Please return this form to the sign-in desk or mail written comments to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments:

In my opinion, the proposed action is a gluttonous waste of public funds and space. With the ammount of money proposed, the existing space could be enlarged and renovated and the buildings surrounding the Mohawk area could be restored for commercial + residential purposes. A downtown neighborhood!

▪ ALTERNATIVES

Comments:

The Waterfront alternative is the best idea. Pre-existing sewer + electric open space without demolition, and an instant attraction to the waterfront. An area that begs for growth.

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

The Mohawk site is full of cultural attributes that are not being considerd. Archetectural elements that should not be destroyed, only renovated. This city tears down too many of it's buildings that could be reforbished and used for many commercial uses. We need to use our history to present our uniqueness

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

To me, it seems that demolition of existing structures is environmentally UN FRIENDLY! whereas building over a parking lot with existing resources seems SMARTER!

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

Waterfront Site
- No Demolition
- Existing Electric Grid
- Existing Sewer

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Kevin J. Hosey

Agency/Organization:

Address: 168 Norwood Avenue
Buffalo, NY 14222

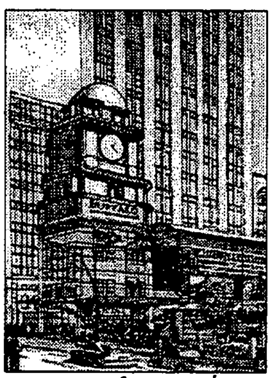
Email: KJHosey@aol.com

Please return this form to the sign-in desk or mail written comments to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments: I totally oppose building a new convention center at the Mohawk site, and indeed prefer repairing, expanding and refurbishing the current convention center and making infrastructure improvements

▪ ALTERNATIVES

Comments: If one of the sites for a new convention center is implemented, I would prefer the Waterfront site, but I still prefer expanding the current convention center and making infrastructure improvements if any work is done.

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

I don't believe the current, ongoing cultural offerings of the Mohawk site are being considered, nor do I believe the effects of losing these cultural offerings (Mohawk Place, etc.) are being fully considered. This includes the culture work of artists themselves, as well as the financial aspect.

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments: There should be ways of incorporating green design and environmental issues and concerns in improving/expanding the current site.

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

Minimizing effects on residences, culture, services as well as improving infrastructure and controlling spending. Consideration of city residents should also be stressed.

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): SANDRA LOLLA

Agency/Organization: RADISSON SUITE HOTEL

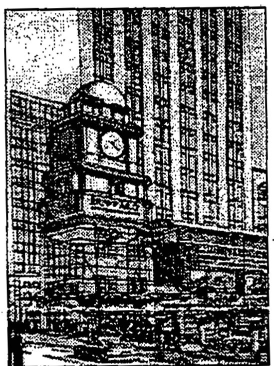
Address: 601 MAIN ST.
BUFFALO NY 14203

Email: Sandra.Lolla@radisson.com

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

▪ PROPOSED ACTION



Comments: YES! ABSOLUTELY! NEW AND EXPANDED SPACE! Those in the Business Know how it will Benefit ALL. Those NOT in the Business Should TAKE A LOOK AT all of OUR (Hotels, CVB) LOST BUSINESS REPORTS Due to LACK OF SPACE!

▪ ALTERNATIVES

Comments: NO

ABSOLUTELY NOT! MUST TRY to Build on What WE ALREADY HAVE Fill the empty STORES + Building Already Here. By moving to waterfront, They will have to Build new Stores/Restaurants/ETC. The old ones will STAY empty!

▪ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

Currently, hotels are Fighting for the Business we have. We Need New Dollars to hit our Community. With the opening of 136 new hotel Rooms Downtown, it will only get worse without the Conventions to Fill them!

▪ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

Redevelopment of Downtown! Fill the empty Buildings with Businesses who will Benefit from our new Convention Center. By Relocating to the Waterfront our current Downtown will Suffer. New Stores + Restaurants will open Down There, the City Centre will Suffer!

02:001288_EC02_01/comments-ideas.CDR-3/13/01-GRA

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): CAROLYN CROSS

Agency/Organization: Erie County Dept. of Social Services

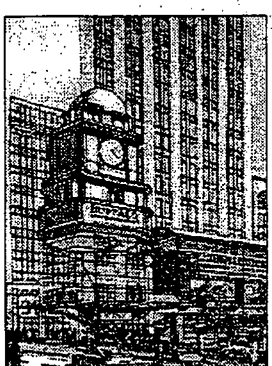
Address: 478 Main St
Buffalo NY 14202

Email:

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

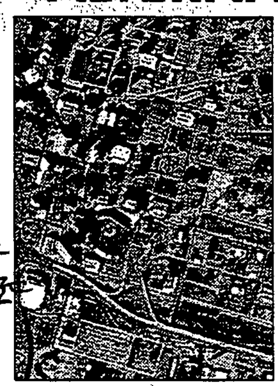
Written comments must be postmarked by April 24, 2001.

■ PROPOSED ACTION



Comments:
I am against the Mohawk site. As one of many County employees who parks in a Washingt St. lot, I am very concerned about future parking facilities (This seems to have been over-looked for the present site) Why is it necessary to tear down existing buildings? This will exacerbatte the downtown rodent problem. I don't believe a new convention center is needed. Money would be better spent developing interest in existing attractions such as Shea's & Darwin Martin House. I think people need reasons to come to our city other than a building to house a convention. The streets need cleaning & repairs & something should be done with vacant buildings. The windows on the old Berger Bldg. should be covered. They look terrible

■ ALTERNATIVES



Comments:

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/ redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

02:001288_EC02_01/comments-ideas.CDR-3/13/01-GRA

4/24/2001

To: Michael Krasner, Erie County Department of Environment and Planning
From: Daniel Sack
Re: New Buffalo Convention Center Project, EIS Comments

I object to any plan for Erie County to build a new convention center or substantially expand the existing convention center.

I urge the County to seek funds to invest downtown to make it a better place for Buffalo and the region. I urge the County to lobby against continuing government infrastructure investment that promotes sprawl when fine infrastructure already exists in Buffalo.

I would accept a plan to maintain and remodel the present convention center on Franklin Street, limiting the remodeling to cosmetic changes to make the very ugly building better looking, and maintenance so that, for instance, the roof and mechanical systems are in good repair. I would not like the building to be expanded, except, perhaps, to see the Court Street exit brought out to court Street and the elimination of the useless and uninviting open space at that exit.

A larger convention center, costing upwards of $151 million plus public investment in new hotels is simply not a good investment for taxpayers. The resulting jobs promised are mostly low wage, no benefit, part time jobs. Each not-so-great-job will cost several times the cost of the much better jobs promised by the Adelphia project and the jobs at the GM Tonawanda factory.

A new convention center, double the size of the existing convention center, is likely to do twice the damage to downtown as was done by the present convention center. Five years after the construction of the existing convention center, more than half of the businesses that had been located at the site were out of business.

Thus from an "economic environmental" point of view, the project is not a good idea.

Projects, be they roads or buildings, that discourage walking and encourage driving, are bad for the environment. So-called office "parks" and malls built too far from anywhere a person would walk from, encourage driving. Large expansive buildings such as convention centers, even in the middle of downtown, discourage walking because walking past such buildings is boring. Studies show that people will simply get in their car and avoid the area. Once in their car, they leave downtown, exactly what has been happening for decades.

Small scale, mixed-use development encourages pedestrians to keep walking, maybe even stay a while, maybe even not leave. This is what we need to encourage in downtown Buffalo. Build on the prosperous area that already exists at the "Mohawk Site" and expand housing, and small commercial and retail space available downtown. Don't strive for the "mega-project". None of them have worked in downtown's favor.

David

Daniel Sack
105 Lancaster Avenue
Buffalo, NY 14222
dan@pataphysics.net

NEW BUFFALO CONVENTION CENTER PROJECT YOUR COMMENTS AND IDEAS

Please take some time to review the display boards throughout the room and ask Erie County representatives questions about the proposed action. Also, please provide written comments on any of the issues raised at today's meeting. Your comments and input are key to ensuring that the EIS addresses issues that are important to you.

Name (Please Print): Barbara DiRienzo, Sales Manager

Agency/Organization: Adam's Mark Hotel

Address: 120 Church Street
Buffalo, NY 14202

Email: bdirienzo@adamsmark.com

Please return this form to the sign-in desk or mail written comments to:
Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building,
95 Franklin Street
Buffalo, NY 14202

Written comments must be postmarked by April 24, 2001.

■ PROPOSED ACTION

Comments:

■ ALTERNATIVES

Comments: As a sales manager at the largest hotel and conference center in Western NY, I solicit to several organizations to bring their conventions to Buffalo. In doing this I have found numerous conventions that require many more overnight (over 1,000) rooms then we as a City can house. Therefore with a new convention center With a lot more meeting space,

■ DEVELOPMENT OBJECTIVES

The County has initially developed twelve development objectives that provide the basis for evaluating the best alternatives for a new convention center or reuse of the existing center. These development objectives include the following:

1. Build a fully functional, state-of-the-art convention center
2. Create a safe and appealing convention center district
3. Re-establish Buffalo as a convention center destination
4. Generate new room nights/increased hotel occupancy
5. Stimulate growth for existing downtown businesses
6. Create a reuse for the existing Convention Center
7. Present a high-quality image of Buffalo
8. Reinforce downtown Buffalo's position as a regional hub
9. Bring more regional residents downtown
10. Improve Buffalo's visitor/tourist infrastructure
11. Serve as a catalyst to economic development in the region
12. Stimulate long-term development/redevelopment of downtown

Do you feel there are additional objectives that should be considered in the evaluation of alternatives? If so what are they?

(Con't) I think it would be useless and a waste of money without the added hotel rooms.
I think that a renovated convention center is most definitely needed, but the existing would be fine.
I just hope that a speedy decision will be made because it would make my job a lot easier.

■ ENVIRONMENTAL ISSUES/ GREEN DESIGN

Comments:

Please identify factors that should be used in evaluating the appropriateness of alternative sites for location and operation of the Convention Center.

- # of hotel rooms
- progress of waterfront & other downtown development.

246 Norwood Ave.
Buffalo, NY 14222

April 23, 2001

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor, Rath Building
95 Franklin Street
Buffalo, NY 14202

Dear Mr. Krasner,

Please include this letter among the public comments on the scoping process for the convention center EIS. I would like to see the following considerations addressed in the study:

Market Projections

Since the Johnson and KPMG studies were done, the market prospects have changed significantly. *Tradeshow Week*, for instance, is now projecting a 25% increase in the total capacity of U.S. meeting facilities by 2005, and an increase of only 4% in attendance; please incorporate updated data in the projections. (See the attached *New York Times* article for additional context.) In developing projections, please consider also the increased local competition from the new Adam's Mark facilities and the Clarence Convention Center, as well as the competitive disadvantage Buffalo may have in attempting to attract conventions from warmer cities during the winter months.

The accuracy of past projections, both site-specific and overall market size, should also be assessed. The Johnson report, for instance, relied on Center for Exhibition Industry Research projections for overall industry growth during 1996-2000. It's now possible to compare those projections to the actual data for 2000; how accurate were they, and what are the implications for current CEIR projections? Next, how accurate have consultants been in projecting additional visitors to result from recent facility expansions or replacements in other cities? (For instance, I understand Baltimore was told to expect their recent expansion to produce roughly a 50% increase in visitors, and in fact there was essentially no change.) Finally, how accurate were the projections made before construction of the current Buffalo and Niagara Falls Convention Centers?

Economic Impact

In assessing the likely economic impact, do not neglect opportunity costs: what is the value of the *existing* activities that will be displaced from the various sites, as well as the lost potential of alternative approaches to *further development* of those sites? (For instance, the recent R/UDAT study emphasized the critical importance of retaining what remains of Buffalo's unique architectural heritage, and initiating conversion of unused commercial structures to housing. The opportunity lost through demolition of these structures should be considered as a cost.)

A second kind of opportunity cost is the set of alternative investments precluded by devoting a large chunk of public money to this project. To understand properly its economic impact, the payoff should be compared to other ways of investing $151 million in downtown: what is the cost per job created, and the cost per dollar of wages created, and how does that compare to other forms of public investment (infrastructure; education; assistance to multiple small business)? Also, how does the cost compare to simply purchasing hotel rooms at public expense for visitors who agree to stay several days and buy their own meals, local transportation, and souvenirs?

Please consider also the relative risk of relying on a single large project for economic development vs. a number of independent smaller projects. Also, be sure that the average number of hotel-room-nights

per meeting attendee assumed in calculating the economic impact is borne out by the experience of similar cities.

Hotel Capacity

If the project does produce a significant increase in out-of-town visitors, is there a plan for providing sufficient hotel rooms, given that the existing downtown hotels are already at capacity in the summer, when we would draw the bulk of our convention business? Given the likely low occupancy during the slow winter months, private investment in a new convention hotel is unlikely. Will we then have to, like many other cities, build a publicly funded hotel along with the convention center, and how much will that add to the project's cost?

Urban Fabric

What is the impact on the urban fabric of placing a monolithic, single-use facility of this size within the downtown core? Will it promote or inhibit 24-hour, 7-day pedestrian activity downtown (what is the trip-generation per square foot for similar facilities here and elsewhere, and how evenly is the pedestrian traffic distributed around the clock and throughout the week and year)? How will the proposed project and associated demolition affect the prospects for getting more people living downtown? What will the impact of any street closings or tunnelizations be on pedestrian flow and on the viability of Buffalo's historical street grid? Is there a feasible reuse plan in place for the current convention center if it is to be replaced?

Green Design

Include the energy wastage implicit in any demolition of existing structures.

Location

Given current interest in promoting regionalism, and the difficulty of consistently filling any large facility, should consideration be given to having an upgraded or replaced Niagara Falls convention center serve the entire Buffalo-Niagara region?

If a new convention center is to be constructed within Buffalo, in considering potential sites please remember to distinguish between *easy access* to major hotels (necessary) and *adjacency* to hotels (not necessary). Attached is a table of data compiled by the late transportation planner Gordon J. Thompson in 1999. He found that of convention facilities in approximately 60 cities, more than half are located either on the periphery of downtown or outside downtown altogether. 30% have *no* principal hotel nearby, and many of the others have a single hotel nearby that cannot house most of the visitors. In such cases, public transit links the convention facility to a more distant set of hotels. Mr. Thompson found that rail transit served to link the primary hotels to the convention centers in Baltimore, Boston, Calgary, Denver, Detroit, Edmonton, Jacksonville, Montréal, New Orleans, Philadelphia, Portland, Sacramento, St. Louis, San Diego, San Jose, and Vancouver. Given Buffalo's existing light rail system, any site near the rail system should be considered to offer easy access to centrally located hotels.

Thank you for the opportunity to provide these comments.

Sincerely,

Hank Bromley

Hank Bromley

The New York Times, April 6, 2001

The Big City: Conventional Business - A Warning

By JOHN TIERNEY

CHICAGO -- When officials at the Jacob K. Javits Convention Center dream, they dream of McCormick Place in a week like this.

These halls near Lake Michigan are the industry's Valhalla, the largest convention center in America and still growing. Four years ago McCormick Place added an 840,000-square-foot hall — as big as the entire Javits Center — to bring the total exhibit space to 2.2 million square feet, and now it's building even more.

This week, if you made the half-mile trek across the center, you passed a sea of computer equipment at the Comdex show and then entered acres of humongous garbage trucks and compactors at Waste Expo. To people in the convention-center business, it doesn't get much better than this.

Two huge shows at once! Thousands of conventioneers paying for hotel rooms and meals! All those dollars, and New York is missing out because it keeps delaying plans to enlarge the Javits Center. Why, the Javits boosters ask, can't New York take a cue from Chicago and the other cities that are expanding their conventional halls?

But if you take a closer look at McCormick Place, you may wonder what has gotten into the people of Chicago and other cities. The new 19-acre hall filled with garbage trucks this week is actually empty much of the time. Conventions are scheduled there only seven days per month this spring, and only six days per month in the summer. Chicago is caught in an arms race of cities rapidly adding more space than there are conventions to fill.

In the 1990's, Chicago's share of the convention market was declining even as the center expanded, according to Heywood Sanders, the director of the public administration program at the University of Texas at San Antonio. In 1989 Chicago drew 29 of the major national shows; a decade later it got only 23 despite building the new hall, a new hotel and other facilities.

After the new hall opened in 1996, Dr. Sanders notes, the total number of conventioneers visiting Chicago actually declined slightly the next three years. Last year attendance was up, but not nearly enough to fill the new space.

"Chicago spent a billion dollars to expand exhibit space by 60 percent," Dr. Sanders said, "but they've gotten at best 20 percent more business in a good year, and nothing in a bad year. That's typical of what you see at the other centers that have expanded."

Such warnings, though, rarely deter politicians from expansion projects that provide patronage and please the hotel and restaurant industries. A few vague and unrealistic projections are enough to justify going ahead. The people who operate and use the halls know that the public will help foot the bills.

To pay for the new hall at McCormick Place, Illinois legislators imposed a 6 percent tax on rental cars and added surcharges on hotel rooms, restaurant meals and rides in taxicabs, limousines and buses. Chicagoans also got stuck with a bill for subsidizing coal miners in southern Illinois, because that was the price downstate legislators demanded in return for approving the new hall.

AND what did the Chicagoans get in return for their money? "Remarkably little," Dr. Sanders said, "and New Yorkers could expect the same from an expansion at Javits. There would be essentially no change in its business, and maybe even a decline as the competition gets tougher. As the economy slows, and a 25 percent increase in exhibit space comes on the market over the next five years, the result will be murderous competition."

New Yorkers may think that conventioneers will be unable to resist the city's lure, but that's not what you hear from the people at Waste Expo this week. They see New York as costlier than Chicago, and they are already looking forward to next year's show in Las Vegas as a relief from Chicago's $180-a-night rooms and expensive union work rules.

Dan Brandon, who was selling the Boss Hog, a 46-foot-long, 90,000-pound machine for grinding whole trees, said he did not relish maneuvering that equipment into New York or paying $250 for a hotel room. The prospect of an enlarged Javits Center did nothing for Mr. Brandon, a marketing manager for a Michigan company called Morbark, who is a member of the committee that helps choose the location of Waste Expo each year.

"Take this show to New York?" Mr. Brandon asked incredulously. "The idea has never even been brought up in our committee." He and Dr. Sanders have the same message for dreamers of a bigger Javits Center: build it and they will not come.

RELATIONSHIP OF CONVENTION FACILITIES TO MASS TRANSIT

city	facility	at heart of down-town (●) or on periphery	located on water-front	out of town	princi-pal hotel nearby 1	public transit access2	notes
Anaheim	Anaheim Convention Center			●	no		
Asbury Park, New Jersey	Convention Center	●	●		no	CR	
Atlanta	World Congress Center	●			✓	HRT	
Atlantic City	Convention Center				✓		
Baltimore	Convention Center	P	●		✓	LRT CR	
Boston	Bayside Exposition Center			●	no	HRT	
Buffalo	Convention Center	●			✓	LRT	
Calgary	Southern Alberta Jubilee Center Auditorium			●*	✓	LRT	
Charlotte	Convention Center	●			✓	VT	3
Chattanooga	Convention Center	P			✓		
Chicago	Chicago Civic Center	●			no	HRT	4
Cincinnati	Convention Center	●			✓		LRT prop.
Cleveland	Convention Center	●				LRT near	
Columbus	Greater Columbus Convention Center	P			✓		LRT prop.
Dallas	Convention Center	P			✓	LRT*	
Denver	Convention Center	P			✓	LRT	
Des Moines	Civic Center of Greater Des Moines	●			n.a.		
Detroit	Civic Center and Cobo Hall Conference Center	P	●		✓	P-M	
Edmonton	Convention Center Northern Alberta Jubilee Center	●		●	✓	LRT LRT	
Indianapolis	Convention Center and Hoosier Dome	●			✓		5
Jacksonville	Convention Center			●	no	MON*	LRT prop.
Kansas City	Municipal Auditorium			●	no		LRT prop.
Las Vegas	Las Vegas Civic Center			●	✓		MON prop.
Long Beach, California	Convention and Entertainment Center	P	●		✓	LRT	
Los Angeles	Convention Center	P			no	HRT	
Louisville	Commonwealth Convention Center	●			✓		
Madison	Monona Terrace Community and Civic Center	P	●		✓		LRT prop.
Memphis	Everett R. Cook Convention Center and Exhibition Center	●			✓	VT	6
Miami	Miami-Miami Beach Convention Center		●	●	✓		LRT prop.
Milwaukee	Convention Hall	P			✓		LRT prop.
Minneapolis	Convention Center	P			✓		
Montréal	Place des Arts	P			no	HRT	LRT prop.
Myrtle Beach	Convention Center	P	●		no		LRT prop.
Nashville	Convention Center	●			✓		CR prop.

city	facility	at heart of down-town (●) or on periphery	located on water-front	out of town	princi-pal hotel nearby 7	public transit access8	notes
New Orleans	Convention Center	P	●		no	VT	
New York City	Jacob Javitts Convention Center	P	●		no		LRT prop.
Niagara Falls, New York	JFK International Convention Center	●			✓		LRT prop.
Norfolk	Civic Center	●			no		LRT prop.
Oakland	H. J. Kaiser Convention Center	●			no	HRT	
Ocean City, Maryland	Convention Center	●	●		✓		
Oklahoma City	Myriad Convention Center	●			no		LRT prop.
Omaha	Municipal Auditorium	●			✓		VT prop.
Ottawa	Conference Center of Canada	P			no		
Philadelphia	Civic Center and Convention Hall	P			✓	LRT	
Pittsburgh	David Lawrence Convention Center	P			✓	LRT	9
Portland	Convention Center	P			✓	LRT*/ VT	
Providence	Providence Civic Center	P			✓		
Rochester	Convention Center	●	●		✓		LRT prop.
Sacramento	Convention Center	P			✓	LRT/VT	
Saint Louis	Convention Center	●			✓	LRT*	
Saint Paul	Civic Center	P			✓		
Salt Lake City	Salt Palace	●			✓	LRT	
San Diego	Convention Center		●		✓	LRT*	
San Francisco	Moscone Convention Center	P			✓	HRT, LRT, VT, ETB	
San Jose	Convention Center	P			✓	LRT*	
Seattle	Washington State Convention and Trade Center	P			✓	ETB* VT	10
Tampa	Curtis Hixon Convention Hall	P	●		✓		VT prop. 11
Toronto	Canadian National Exhibition		●	●	no	CR and StR	
Vancouver, B.C.	Pacific National Exhibition		●	●	no	ETB	

notes:
* = has its own station
CR = commuter rail
ETB = electric trolley bus
HRT = heavy rapid transit
LRT = light-rail transit
MON = monorailway
P-M = people-mover
StR = street railway

1 within one to three blocks of convention center
2 in all instances, bus service is available.
3 It is intended to convert the vintage trolley line (VT) to light-rail transit (LRT)
4 dedicated fare-free electric buses link waterfront, downtown, convention center, and festival market place
5 next to University of Alberta campus
6 the vintage trolley lines are to be converted to full-scale LRT
7 within one to three blocks of convention center
8 in all instances, bus service is available.
9 The Penn Shuttle branch of the LRT system that serves this facility is temporarily out of service.
10 The underground electric trolley-bus line is to be converted to LRT
11 a new convention center is being built on the Garrison Channel waterfront: the old one is on the Hillsborough River waterfront

GJT/GTW(P-180)FILE:PRACCONVENTIONCENTERSANDTRANSIT.DOC 22 August 1999

BUFFALO CONVENTION CENTER PROJECT

URS CORPORATION

TRANSPORTATION ELEMENTS

MARCH 27, 2001

Comments: ENLARGE THE CURRENT CONVENTION CENTER. INCORPERATE THE GREEN DESIGN PRINCIPLES. WE DON'T NEED MORE PARKING LOTS. IMPROVE/EXPAND THE LIGHT RAIL SYSTEM TO THE AIRPORT, TONAWANDA AND AMHERST. CONVENTIONEERS COULD BE DOWNTOWN IN 20-30 MINUTES WITH NO PARKING WORRIES MANY LARGE HOTELS COULD ACCOMMODATE THE INFLUX OF VISITORS

Name: E. EDWARD DEUTSCHMAN, CHAIRMAN CITIZENS REGIONAL TRANSIT CORP.

Address: PMB 303 5330 MAIN ST. WILLIAMSVILLE, NY 14221

J:\Connie\Newman\Bflo Convent Ctr.doc

A-188

WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

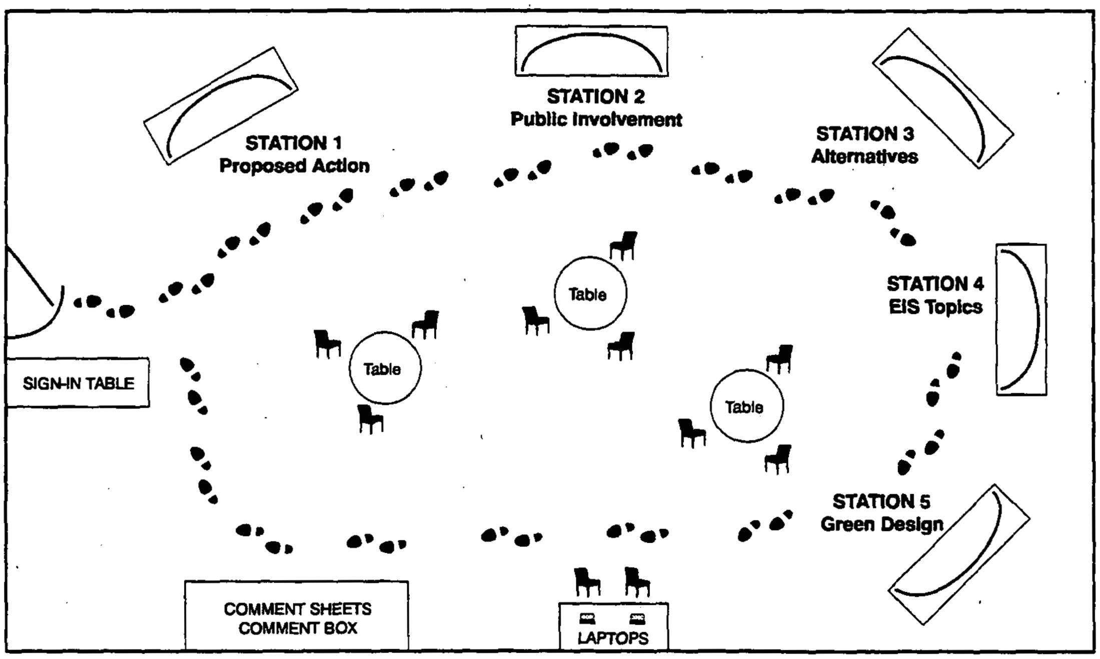
The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site.** In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?

What topics are key to the community?



Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202

NEW BUFFALO CONVENTION CENTER PROJECT MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   ☒ YES ☐ NO

2. Did you get the information you needed to formulate questions/comments?

   ☒ YES ☐ NO

3. Did the people at the displays respond to your questions?

   ☒ YES ☐ NO

4. Did you provide comments?

   ☒ YES ☐ NO

5. If yes, which format did you use?

   ☒ Comment sheets
   ☒ Verbal
   ☐ Laptop computer

6. Did you like the open house format?

   ☒ YES ☐ NO

7. Any additional comments?

8. Would you like to be put on the mailing list? if yes, please provide:

   Name STUART HUNT
   Address 403 MAIN St ~~St~~ BRISBANE BLDG
   BUFFALO, N.Y. 14203

   Email

02:001288_EC02_01/meeting_feedback.CDR-3/23/01-GRA

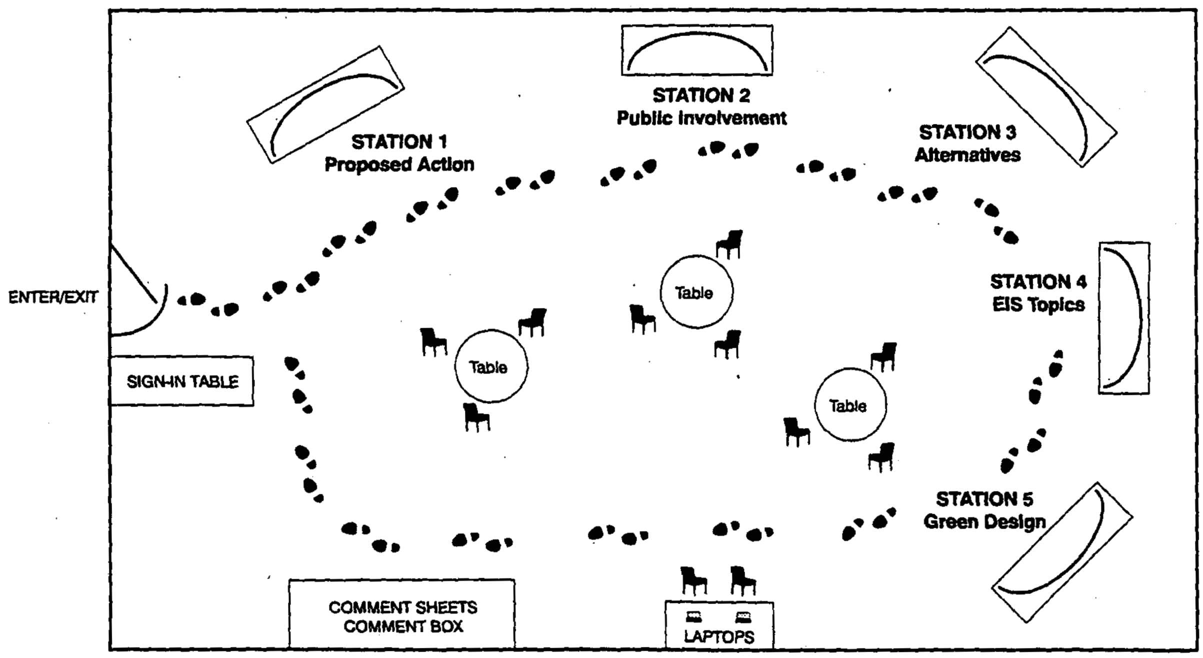
WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site.** In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?
What topics are key to the community?



Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building

NEW BUFFALO CONVENTION CENTER PROJECT MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   ☑ YES ☐ NO

2. Did you get the information you needed to formulate questions/comments?

   ☑ YES ☐ NO

3. Did the people at the displays respond to your questions?

   ☑ YES ☐ NO

4. Did you provide comments?

   ☑ YES ☐ NO

5. If yes, which format did you use?

   ☑ Comment sheets
   ☐ Verbal
   ☐ Laptop computer

6. Did you like the open house format?

   ☑ YES ☐ NO

7. Any additional comments?

8. Would you like to be put on the mailing list? if yes, please provide:

Name Cynthia Van Ness

Address 464 Norwood Ave.
Buffalo NY 14222-1504

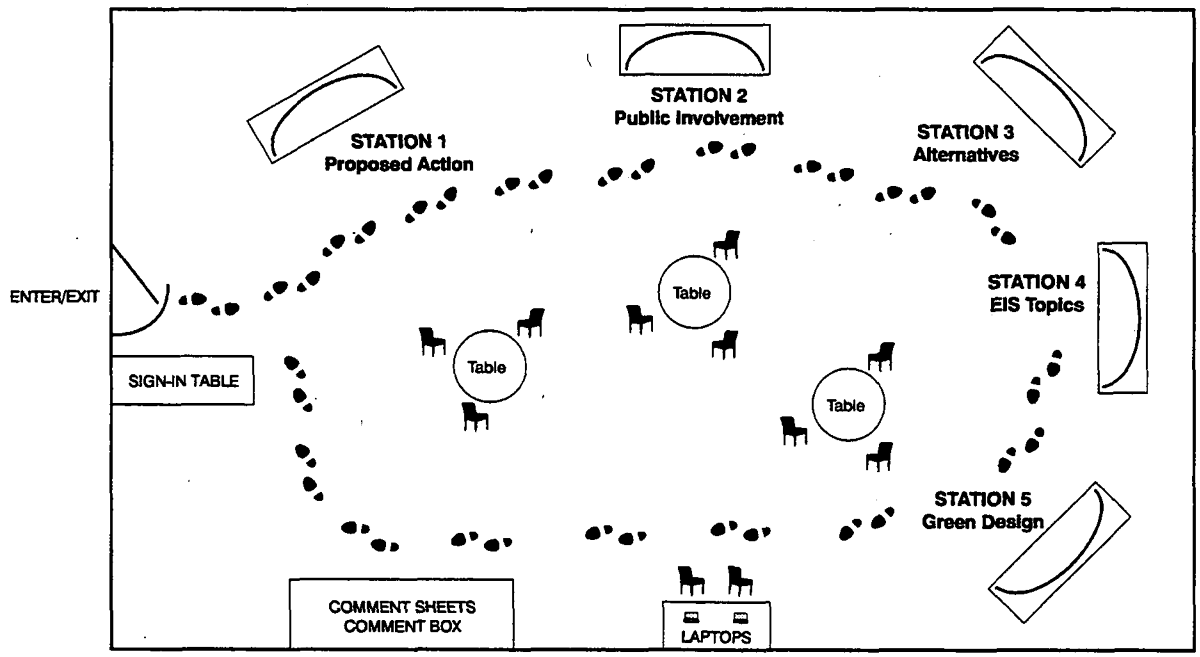
WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site.** In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?
What topics are key to the community?



Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202

NEW BUFFALO CONVENTION CENTER PROJECT

MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   [ ] YES   [x] NO

2. Did you get the information you needed to formulate questions/comments?

   [x] YES   [ ] NO

3. Did the people at the displays respond to your questions?

   [ ] YES   [ ] NO

4. Did you provide comments?

   [x] YES   [ ] NO

5. If yes, which format did you use?

   [x] Comment sheets
   [ ] Verbal
   [ ] Laptop computer

6. Did you like the open house format?

   [x] YES   [ ] NO

7. Any additional comments?

   PLEASE KEEP USING THE OPEN HOUSE FORMAT. THIS WAS MUCH EASIER TO MAKE TIME TO ATTEND THAN A SPECIFIC 2 OR 3 HOUR PUBLIC MEETING WOULD HAVE BEEN!

8. Would you like to be put on the mailing list? if yes, please provide:

   Name ______________________

   Address ______________________

   ____

   ____

   Email ______________________

02:001288_EC02_01/meeting_feedback.CDR-3/23/01-GRA

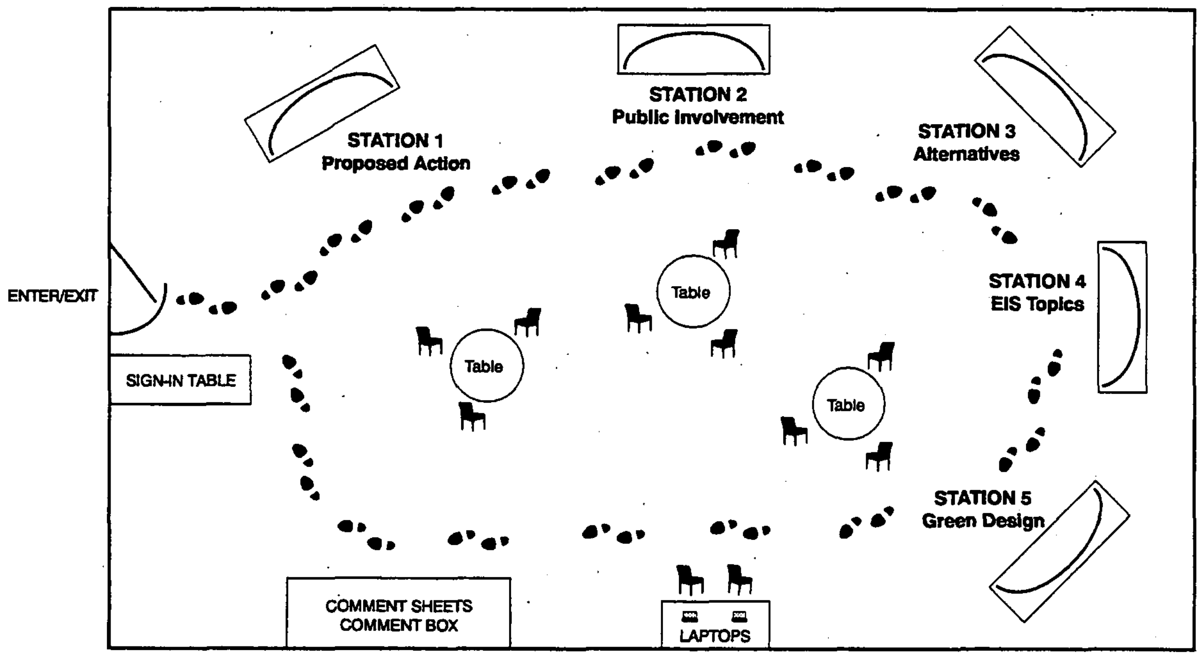
WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site.** In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?
What topics are key to the community?



Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202

NEW BUFFALO CONVENTION CENTER PROJECT MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   ☑ YES about half of them ☐ NO

2. Did you get the information you needed to formulate questions/comments?

   ☐ YES ☐ NO not from the official displays, but from CCS!

3. Did the people at the displays respond to your questions?

   ☐ YES ☐ NO

4. Did you provide comments?

   ☑ YES ☐ NO

5. If yes, which format did you use?

   ☑ Comment sheets
   ☐ Verbal
   ☐ Laptop computer

6. Did you like the open house format?

   ☑ YES ☐ NO

7. Any additional comments?

   ____

8. Would you like to be put on the mailing list? if yes, please provide:

   Name ____________________

   Address ____________________

   Email ____________________

02:001289_EC02_01/meeting_feedback.CDR 3/23/01 GRA

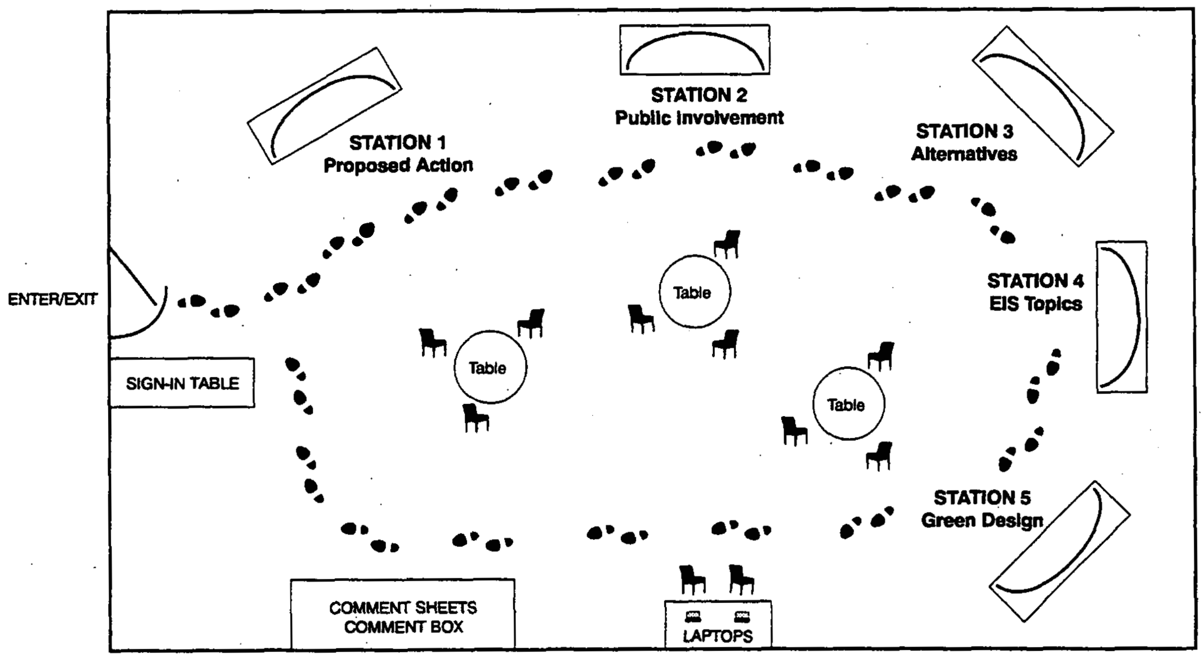
WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site.** In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?
What topics are key to the community?



Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202

NEW BUFFALO CONVENTION CENTER PROJECT MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   ☑ YES ☐ NO

2. Did you get the information you needed to formulate questions/comments?

   ☑ YES ☐ NO

3. Did the people at the displays respond to your questions?

   ☑ YES ☐ NO

4. Did you provide comments?

   ☑ YES ☐ NO

5. If yes, which format did you use?

   ☑ Comment sheets
   ☐ Verbal
   ☐ Laptop computer

6. Did you like the open house format?

   ☑ YES ☐ NO

7. Any additional comments?

   Good Work Mike!

8. Would you like to be put on the mailing list? if yes, please provide:

   Name Les Hoffman
   Address 460 Norwood Av
   14222

   Email LESHOFFMAN@YAHOO.com

02:001288_EC02_01/meeting_feedback.CDR-3/23/01-GRA

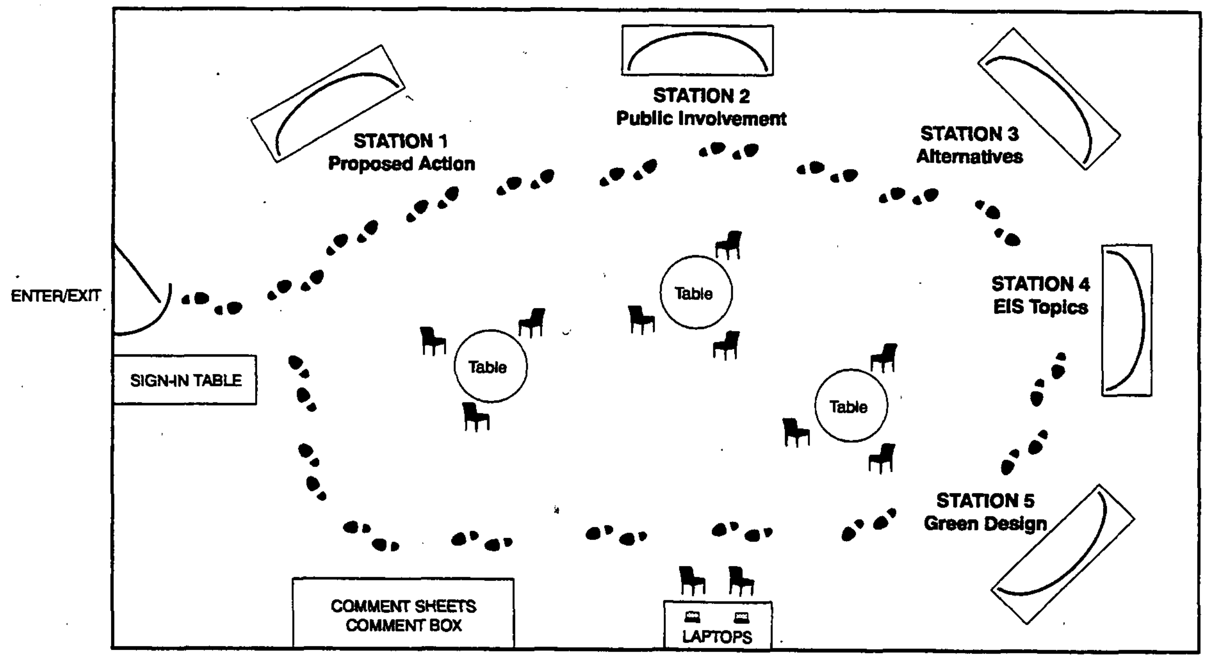
WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site.** In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?
What topics are key to the community?



Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202

NEW BUFFALO CONVENTION CENTER PROJECT MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   ☒ YES ☐ NO

2. Did you get the information you needed to formulate questions/comments?

   ☒ YES ☐ NO

3. Did the people at the displays respond to your questions?

   ☒ YES ☐ NO

4. Did you provide comments?

   ☒ YES ☐ NO

5. If yes, which format did you use?

   ☒ Comment sheets
   ☐ Verbal
   ☐ Laptop computer

6. Did you like the open house format?

   ☒ YES ☐ NO

7. Any additional comments?

8. Would you like to be put on the mailing list? if yes, please provide:

Name John Fell
Address 267 Babcock St, Apt A.
Bflo, NY 14210

Email felljohn@hotmail.com

02:001288_EC02_01/meeting_feedback.CDR-3/23/01-GRA

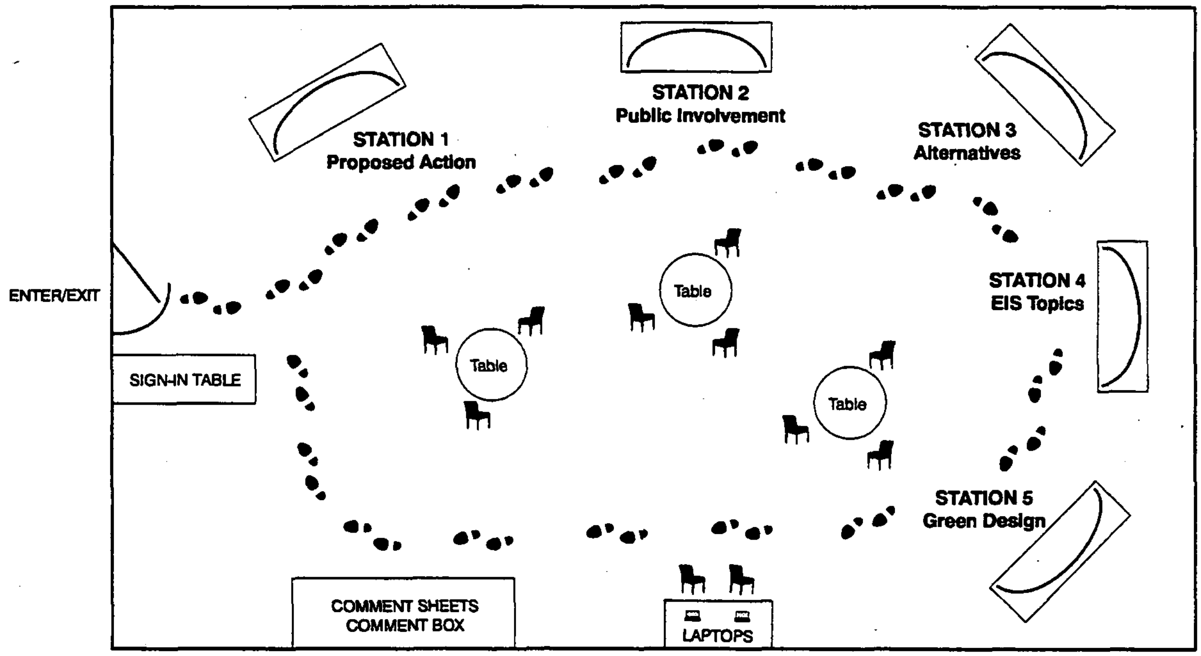
WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site**. In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?
What topics are key to the community?



Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202

NEW BUFFALO CONVENTION CENTER PROJECT MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   ☑ YES ☐ NO

2. Did you get the information you needed to formulate questions/comments?

   ☑ YES (some) ☐ NO

3. Did the people at the displays respond to your questions?

   ☑ YES ☐ NO

4. Did you provide comments?

   ☑ YES ☐ NO

5. If yes, which format did you use?

   ☑ Comment sheets
   ☐ Verbal more on ~~[illegible]~~ web site
   ☐ Laptop computer

6. Did you like the open house format?

   ☑ YES as long as comments are taken into consideration ☐ NO

7. Any additional comments?

8. Would you like to be put on the mailing list? if yes, please provide:

   Name Christian Charnock
   Address 9111 Hillview Dr
   Clarence, NY 14031
   Email ~~[illegible]~~ christiancharnock@hotmail.com

02:001288_EC02_01/meeting_feedback.CDR-3/23/01-GRA

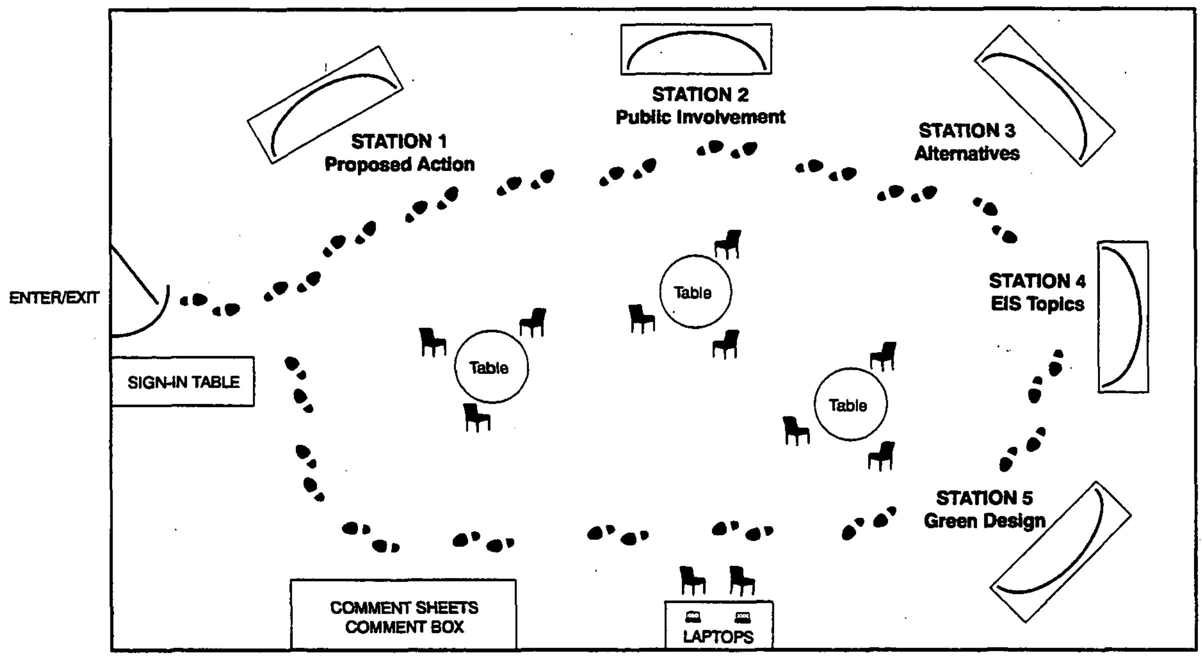
WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site**. In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?
What topics are key to the community?



Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202

NEW BUFFALO CONVENTION CENTER PROJECT MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   ☑ YES   ☐ NO

2. Did you get the information you needed to formulate questions/comments?

   ☑ YES   ☐ NO

3. Did the people at the displays respond to your questions?

   ☑ YES   ☐ NO

4. Did you provide comments?

   ☑ YES   ☐ NO

5. If yes, which format did you use?

   ☑ Comment sheets
   ☑ Verbal
   ☐ Laptop computer

6. Did you like the open house format?

   ☑ YES   ☐ NO

7. Any additional comments?

   thanks for the chance to Comment on this important proposal

8. Would you like to be put on the mailing list? if yes, please provide:

   Name Elizabeth Kauffman
   Address 5 Orton Place
   Bflo. Ny 14201

   Email BFLOBETH@HOTMAIL.COM

02:001288_EC02_01/meeting_feedback.CDR-3/23/01-GRA

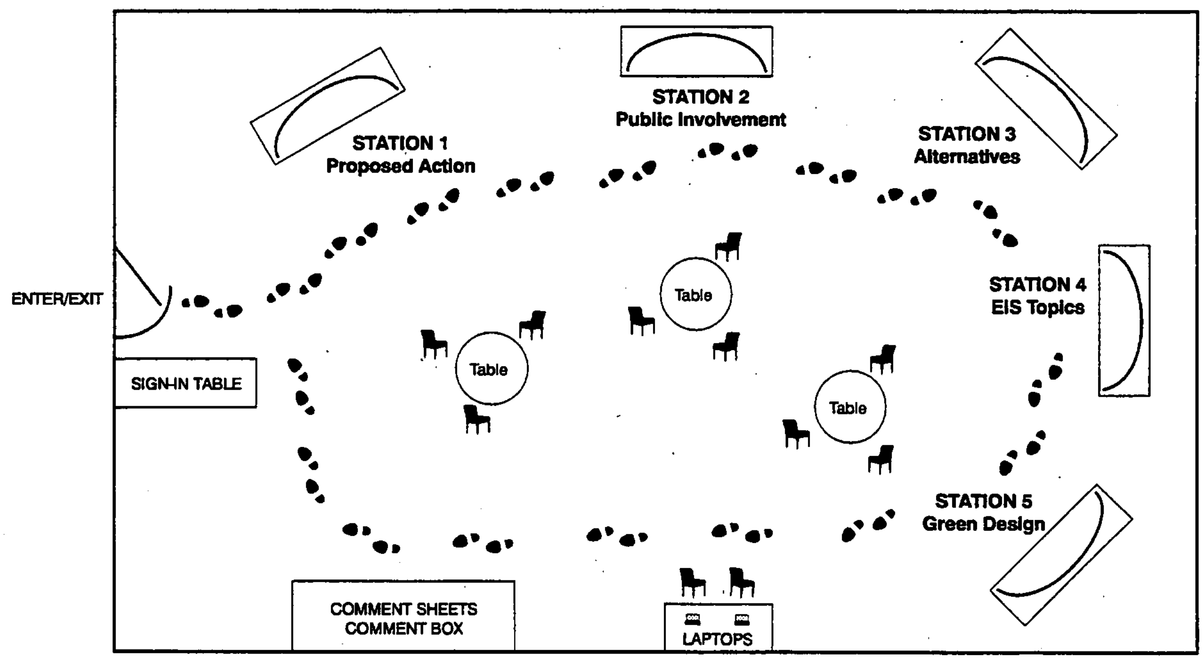
WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site.** In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?
What topics are key to the community?



Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202

NEW BUFFALO CONVENTION CENTER PROJECT MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   [x] YES [ ] NO

2. Did you get the information you needed to formulate questions/comments?

   [x] YES [ ] NO

3. Did the people at the displays respond to your questions?

   [x] YES [ ] NO

4. Did you provide comments?

   [x] YES [ ] NO

5. If yes, which format did you use?

   [x] Comment sheets
   [x] Verbal
   [ ] Laptop computer

6. Did you like the open house format?

   [x] YES [ ] NO

7. Any additional comments?

   The mohawk site is the consultant's recommended site. Why spend money on consultants and the do things other than what they recommend.?

8. Would you like to be put on the mailing list? if yes, please provide:

   Name Kevin Verrall
   Address P.O. Box 42
   West Seneca NY 14224

   Email

02:001288_EC02_01/meeting_feedback.CDR-3/23/01-GRA

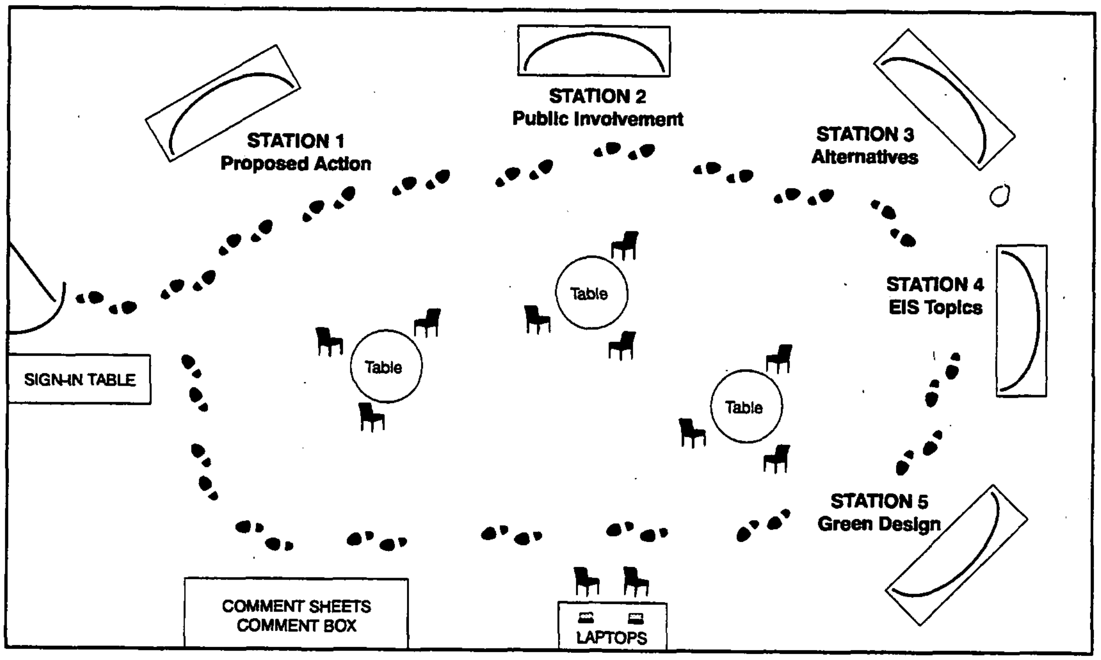
WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site**. In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?
What topics are key to the community?



DEVELOPMENT OBJECTIVES

Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202

NEW BUFFALO CONVENTION CENTER PROJECT MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   ☒ YES ☐ NO

2. Did you get the information you needed to formulate questions/comments?

   ☒ YES ☐ NO

3. Did the people at the displays respond to your questions?

   ☒ YES ☐ NO

4. Did you provide comments?

   ☒ YES ☐ NO

5. If yes, which format did you use?

   ☒ Comment sheets
   ☐ Verbal
   ☐ Laptop computer

6. Did you like the open house format?

   ☒ YES ☐ NO

7. Any additional comments?

I have been following this issue through the Artvoice articles. The presentation is basic and good. It is basic in that after 2 or 3 previous issues I (and perhaps others) feel that these are fundamental starting points. It is good to feel that all parties are at the same point. Very Good. One lingering worry is the 45 day Public Review: There seems to be no time for feedback to comments. In other situations this has been a time for the "Public" to speak and then be ignored. I hope this will not happen again

8. Would you like to be put on the mailing list? if yes, please provide:

Name ROBERT G DUNFORD

Address 3442 MAIN ST

BUFFALO NY 14214

Email

02:001288_EC02_01/meeting_feedback.CDR-3/23/01-GRA

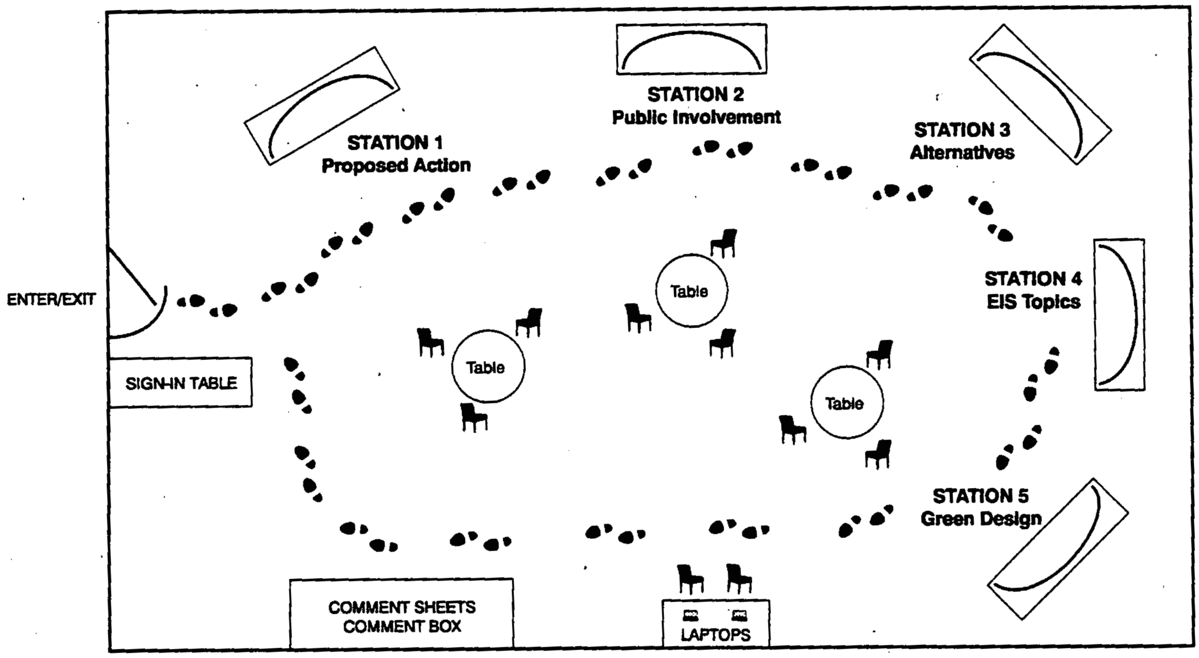
WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site.** In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?
What topics are key to the community?



Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202

NEW BUFFALO CONVENTION CENTER PROJECT MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   ☑ YES ☐ NO

2. Did you get the information you needed to formulate questions/comments?

   ☑ YES ☐ NO

3. Did the people at the displays respond to your questions?

   ☑ YES ☐ NO

4. Did you provide comments?

   ☑ YES ☐ NO

5. If yes, which format did you use?

   ☐ Comment sheets
   ☑ Verbal
   ☐ Laptop computer

6. Did you like the open house format?

   ☑ YES ☐ NO

7. Any additional comments?

   need to bring in more business / Jobs make area more attractive to the needs of people here. Also if we are to bring in conventions needs more Rest Hotels etc

8. Would you like to be put on the mailing list? if yes, please provide:

   Name __________

   Address __________

   Email __________

02:001288_EC02_01/meeting_feedback.CDR-3/23/01-GRA

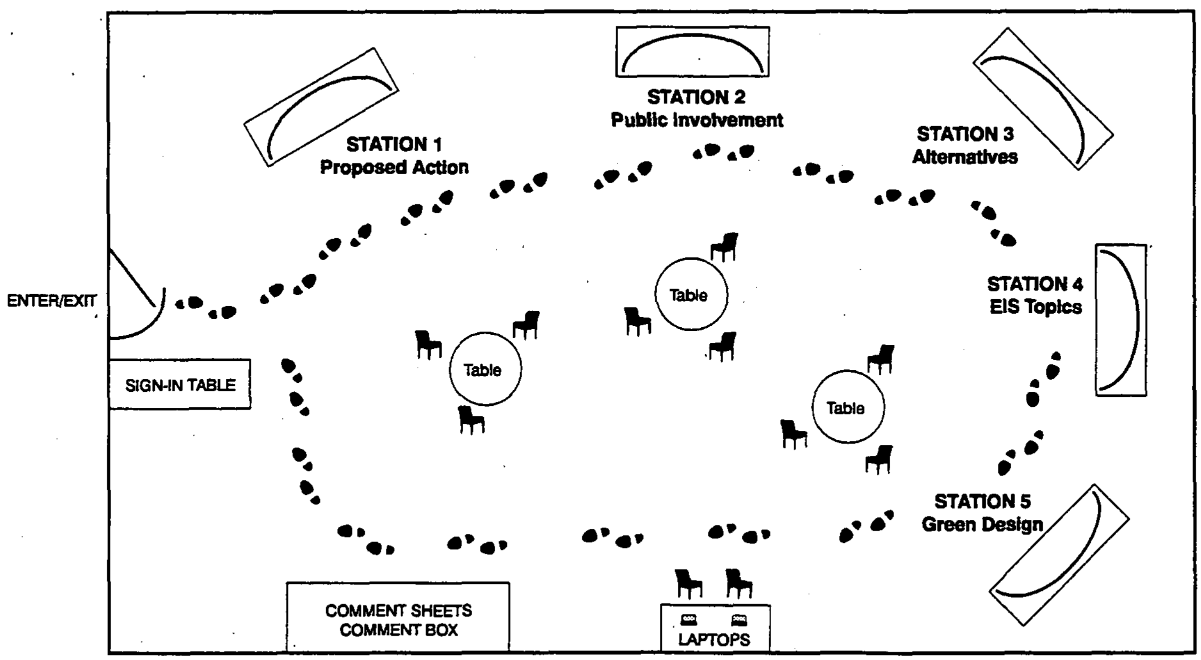
WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site.** In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?
What topics are key to the community?



Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202

NEW BUFFALO CONVENTION CENTER PROJECT MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   ☑ YES ☐ NO

2. Did you get the information you needed to formulate questions/comments?

   ☑ YES ☐ NO

3. Did the people at the displays respond to your questions?

   ☑ YES ☐ NO

4. Did you provide comments?

   ☑ YES ☐ NO

5. If yes, which format did you use?

   ☑ Comment sheets
   ☐ Verbal
   ☐ Laptop computer

6. Did you like the open house format?

   ☑ YES ☐ NO

7. Any additional comments?

   the entire process – though most especially the open house format – needs to be publicized. to have this labor intensive / participant intensive process must be known by a broad range and large number of people. Maybe using libraries as satellite sites may increase participation

8. Would you like to be put on the mailing list? if yes, please provide:

   Name ______________________

   Address ______________________

   ____

   ____

   Email ______________________

02:001288_EC02_01/meeting_feedback.CDR-3/23/01-GRA

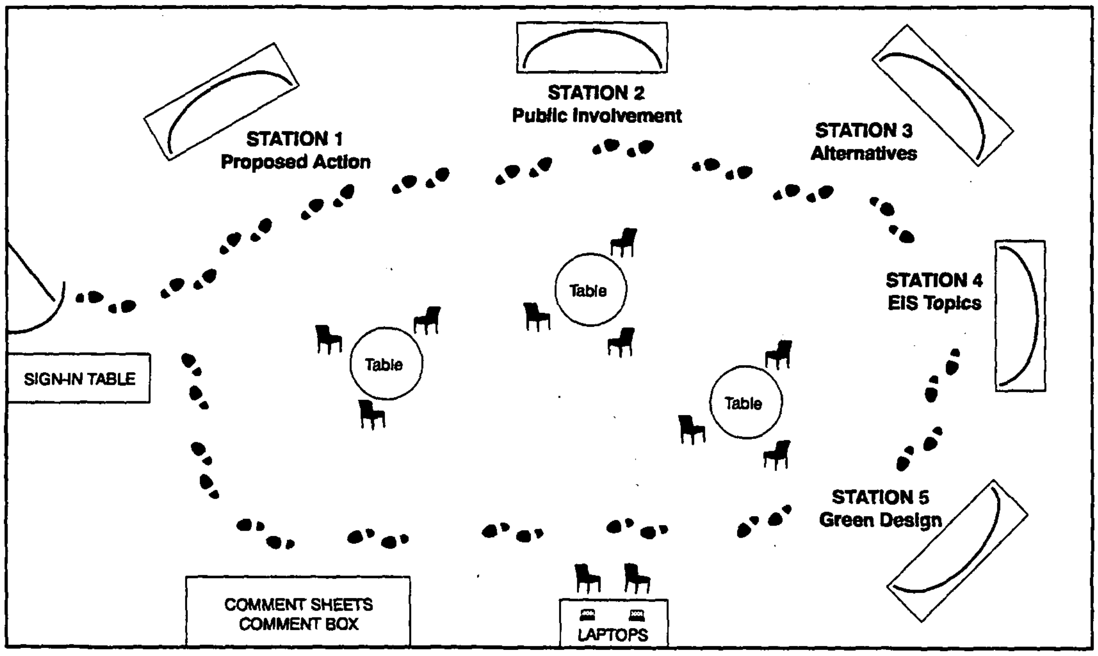
WELCOME TO THE NEW BUFFALO CONVENTION CENTER SCOPING MEETING

The County of Erie is preparing an Environmental Impact Statement (EIS) to study and evaluate the environmental, economic, and social impacts of the proposed New Buffalo Convention Center Project. Four project alternatives will initially be evaluated in the EIS. Potential new sites include the **Mohawk Street Site** and the **Waterfront Site**. In addition, **expansion/renovation of the existing Convention Center** will also be studies as an alternative in the EIS as well as the **no action alternative.**

We are here today because construction of a new Convention Center is a major investment in the city and region. As such, the County intends to obtain as much public input as possible on the potential location and impacts associated with this project. We are prepared to listen to your comments and concerns so that they can be addressed in the EIS.

Please review the displays located throughout the Open House, and then provide us with your comments to help focus our environmental study:

What topics are key to you?
What topics are key to the community?



Ways to Provide Comments:

- Type your comments directly into our database at the computer stations
- Provide verbal comments at any of the exhibit stations
- Fill out a comment sheet and drop it into the comment box
- Visit the project web site at www.bfloconventioncenter.ene.com regularly

You may also provide written comments at a later date. However, all comments must be postmarked by April 24, 2001 in order to be considered in the environmental study. Written comments should be submitted to:

Michael Krasner, AICP
County of Erie
Department of Environment and Planning
10th Floor Rath Building
95 Franklin Street
Buffalo, NY 14202

NEW BUFFALO CONVENTION CENTER PROJECT MEETING FEEDBACK

Thank you for attending the new Buffalo Convention Center open house. Please help make future meetings more productive by responding to the following questions:

1. Did you look at the displays?

   ☒ YES ☐ NO

2. Did you get the information you needed to formulate questions/comments?

   ☒ YES ☐ NO

3. Did the people at the displays respond to your questions?

   ☒ YES ☐ NO

4. Did you provide comments?

   ☒ YES ☐ NO

5. If yes, which format did you use?

   ☒ Comment sheets
   ☒ Verbal
   ☐ Laptop computer

6. Did you like the open house format?

   ☒ YES ☐ NO

7. Any additional comments?

   I WOULD HAVE LIKED TO KNOW MORE ABOUT WHAT BUSINESSES AND STRUCTURES WOULD BE LOST FROM EACH ALTERNATIVE.

8. Would you like to be put on the mailing list? if yes, please provide:

   Name CHRIS ANDRLE
   Address 5554 JUNO DRIVE
   LAKE VIEW NY 14085

   Email CHRIS@ANDRLE.COM

Need for new Convent. Cntr.

SERGIO FORNASIERO
5854 MAIN ST APT #804
WILLIAMSVILLE, N.Y. 14221

- community in crisis
- no exportable product
- losing opp. to import outside $ - %c of fortunate position of being located near Niagara Falls which other convent competitors do not have
- State of the art C.C. as demonstrated by Baltimore, Myrtle B, Sarah, + Ft. Lauderdale have
- These have expanded as well - bringing in new $, creating jobs, spin + off to other industries!
- Poor job of capitalizing of N. Falls position - State of the art CC will be a major amenity to capitalize on eco. potential.
- Expanding existing C.C. would be a costly mistake!
- Waterfront site also a mistake - Seasonal weather make difficult for conventioneers to spend $ - that would benefit community (ex. Shooters -> Buckeyes -> i.e.) couldn't attract customers -> before Memorial Day + after Labor Day.
- Mohawk site is best site available near hotels, Chippewa Street, + shopping Theatre District
- Inflex of visitors to area w/ archit.

theaters & night life would provide economic injection to this part of downtown & enhance Buffalo's image.

- Expands tourism
- NF, Canada → plans to build a new convention center, need to stay competitive — or decline will continue as last 40 years.

BUFFALO CONVENTION CENTER PROJECT

URS CORPORATION

TRANSPORTATION ELEMENTS

MARCH 27, 2001

Comments: WATERFRONT SITE WOULD BE THE ONLY PREFERRED OPTION THAT SITE IS CLEAR OPEN, READY TO GO, AND IN AN AREA ALREADY DOMINATED BY OTHER LARGE USES.
DO NOT CONSTRUCT A C.C. AT THE MOHAWK SITE. IT WOULD REQUIRE TOO MUCH DEMOLITION, INFRASTRUCTURE WORK, AND DESTRUCTION OF URBAN FABRIC

Name: RYAN PIERCE

Address: 325 BRYANT ST, BFLO, NY 14222

3/27/01 2:11:03 PM
Richard Jezewski
citizen
723 Prospect Ave. #15
BUFFALO New York 14213
Topic: opinion/ suggestion

attention MUST BE PAID TO the needs/desires of the Citizens for Common Sense, as well as others who care about the welfare of BUFFALO, N.Y., NOT JUST THE BUSINESS SECTOR. This affects MORE than just the busi sector.

3/27/01 2:33:40 PM
William Pongo
Northern Light Development Co.
4198 Main St. 4198 Main St.
Williamsville New York 14226
Topic: Very intrested in seeing new center @ mohawk site.

I feel it is a great chance for Buffalo to attract major hotels and private investment as well as convention tra We represent many intrests.

3/27/01 3:27:25 PM
David Gaeddert
(self)
171 Sanders Road #4
Buffalo New York 14216-1317
Topic: V. Good presentation, comment space too small!

Dear People: I came down on this vacation-week afternoon to seee what was being proposed, and see if I cc help the future of my city. I am impressed with the planning and layout of your display. I am impressed with intelligence and friendliness of the people I talked with. This set up helped me learn what is proposed, and h me develop my own views on the proposals. I will present a longer essay from home. THIS COMMENT AREA TOO --'N SMALL, IS NOT DEFINED!! I want to stress my aversion to big, expensive projects, not planned wel enough. I want to stress my feeling--the whole world is more competitive than in the past. Businesses in Buf & WNY seem very fragile. Any new projects should be carefully planned, conservatively financed, should be careful of existing businesses. I am kind of in favor of the "null option"--Convention center is now running at small profit. Take care of it, enjoy the benefits it now brings it. Some people don't like the appearance of the center. Looks ok to me, it seems to fit into the neighborhood, but I'm used to working in dumps. "Suggestio is to keep existing building, renovate, maybe more glass for a more modern look, tie this in with "green desi maximum use of windows and solar panels for max HVAC economy. This would also be more of a "talking po bring more business in. --Thanx for this opportunity--

3/27/01 4:32:27 PM
richard willert
resident of downtown buffalo
12 marina park
buffalo New York 14202
Topic: weekend traffic

my wife and I often drive by the existing convention center on the weekends, often in the morning looking fc place to have breakfast. It's difficult tofind a place apart from the hotels. We have often driven by the Conve Center and found conventioneers with their nametags obviouslylooking for somewhere to eat. It does not se as though the existing center has brought much in the way of that sort of business. It also seems strange to that Peller and Muir, the upscale men's clothing store went out of business: I would have thought that the convention center would have brought at least some business to a store like that. It also seems to me that tl existing convention center sort of breaks up and blocks off parts of downtown from each other. Both Franklir Pearl streets seem diminished since the coming of the convention center. I don't see how a new convention center will have any different effect on the streets adjacent to it. These big boxy buildings don't seem to do a thing for the people who live close by to them. Further while I don't have statistics to back this up, there's n that the existing convention center is making any kind of "profit": either in jobs, direct revenues, or ripple ef revenues for either the city or the WNY region.

3/27/01 4:59:35 PM
joel giambrA Giambra

Topic:

3/27/01 5:45:24 PM
willert richard
resident of downtown buffalo
12 marina park
buffalo New York 14202
Topic: convention center reveues & economic impact

I stopped by the SCOPING session march 27 and stoppedat a dispalay which indicated that the current convention center draws about 119,000 people and has as economic impact of 100,2000,000 dollars. That c out to about $850 per attendee. I would be most interested in how this latter figure is determined. Is it base "real" numbers or some sort of formula that calculates a "ripple effect"? I find it impossible to believe that e attendee directly spends over $800. As someone who lives in downtown Buffalo I find it difficult to believe th there is even a ripple effect of the magnitude you suggest. Wouldn't the size of this multiplier depend on the proportion of people who came from out of town versus those who attended from around here? If Buffalo dre high proportion of out of town conventioneers your numbers might make more sense, but it seems to me th many of our conventions are "local" where people come in for the day and maybe buy lunch but are not sper much money.

3/27/01 6:12:15 PM
richard willert
resident of downtown buffalo
12 marina park
buffalo 14202
Topic: national trends and other issues

What is the national trend in convention center use? It seems to me that those who argue in favor of a convention center does so by arguing that there conventions are a "growth industry" in which Buffalo can sh we only build a new center. What are the actual trends? The sense I have is that growth is fairly flat and tha big cities which already have huge centers are already competing for conventions which we might have been to attract. Also when you calculate the income derived from a convention center do you subtract out the inc derived from the site before the center was built. To be fair you should only brag about "new" money broug above and beyond what was being derived from the site previously. Further, since a convention center is us only part of the year, what is the cost of having a big empty building sitting in the middle of downtown for m days of the year. Do the convention center proposals include any ideas on ways the building can be used on days? If not it seems to me you have a giant white elephant many days of the year. Also are there definite i for how the old conventioncenter will be used? Not just a list of possibilities, but real proposals where the de have been fully worked out. I read in the paper some time ago that there several sources of funding (city, c state, private, etc) and that many had expressed doubt about a new center and were very reluctant to com funds. My guess is that you don't really have the funding. Finally, the "Mohawk" site in particular has some o but interesting buildings. I've been in other cities where these kinds of buildidngs have been rehabed and ar sought after as housing and business locations? Is it really sensible,in a city which has something of a reput as a place containing interesting architecture, to tear a substantial chunk of it down?

3/27/01 6:20:58 PM
Marilee Cozzi
Old Editions Book Shop
3124 Main St.
Buffalo New York 14214
Topic: Mohawk Convention Center Proposed Site

We feel that the Mohawk site is the best location for many reasons including accessibility to expressways, si proximity to Downtown central area, etc.

3/27/01 12:48:10 PM
Robert Heffern
citizen
278 Paramount Pkwy.
buffalo New York 14223
Topic:

Building a convention center in any of the sites has disadvantages. Mohawk walls off east side and loses som good buildings and is too far from AdamsMark. Waterfront is another obstacle between downtown and water also is not near any hotels for pedestrian access(I.e. walking under the Thruway is not pleasant. Keep currer and put all plans on hold until an overall vision and strategy is developed. I would rather be late than to do t project badly, as some of buffalo's past experiences have proven.

3/27/01 3:31:48 PM
John Gartner
John Gartner & Co. (also, Buffalo Ambassadors)
26 Chasewood Ln.
East Amherst New York 14051
Topic: Alternative Sites

I'm not convinced about the practicality of building a new box for conventions and leaving the current CC wit a specific and funded reuse (preferably on the tax rolls). The EIS should consider alterenative sites outside o CBD. If there is to be a new box, it should be built on SUNYAB land on Millersport Rd in Amherst. This site is surrounded hotels, restaurants, shopping and transportation. The subway could then be extended above gro on Millersport to UB and the new center bring visitors from downtown (the reverse of what is necessary for l conventions now). The current CC did very little during the past 20 years to "revitalize" downtown and neith a new for the same reasons. It would be better to spend the public funds required for a new CC box on upgr the area's WUG-generated athletic facilities and on housing and small business support in the CBD and near-downtown neighborhoods.

3/27/01 4:25:25 PM
Brian Brewer

849 Delware Avenue, #503
Buffalo New York 14209
Topic: Convention Center: Public Scoping Session

Knowing barely anything about this city (I am a new resident, recently moved here from New York City), my comment will be rather general. I simply wish to voice my opinion that building a convention center that is "green" and efficient with energy and other resources would do much to improve this city's reputation for be nothing but a run-down, post-industrial abortion. By designing any new public buildings that utilize green technologies, city planners would send out the message that Buffalo is embracing the future. As a young per I can confidently state that ecological conservation through forward-looking technologies remain foremost ar my generation's concerns. Thank you for hearing my opinion.

3/28/01 4:17:06 PM
michael militello
Bijou cafes-Bijou Grille
643 Main St
Buffalo New York 14202
Topic: Preference (Mohawk Site)

To Consolidate our entertainment resources where they can do the most good for our community and our convention visitors.

3/30/01 12:41:45 PM
Dan Kohane
Buffalo Convention Center Management Corporation
1300 Liberty Building
Buffalo NY 14202
Topic: Convention Center

Let me add my "written" voice to those who support the construction of a new convention center at the Moh site. As Chair of the Convention Center Management Corporation, former Chair of the Board of the Greater Buffalo CVB and as a business person with a downtown office, I know and understand the importance of the convention and tourism industry to this community. A new state-of-the-art facility in a location which has be selected and endorsed by every group that has studied this issue is a compelling part of the revitilization of Buffalo and Erie County. All one needs to do to verify the importance of this economic engine is to look at otl communities in similar straits and measure the success of the centers built (and expanded) in those location

4/16/01 11:13:32 PM
Gerald Puckett
private citizen
520 Karen Drive
Rutland Vt. 05701
Topic: convention center location

Having grown up in the buffalo area, I am very interested in what happens in my home town. I would like to the convention center located at the waterfront site where less of the existing buildings and streets will be impacted. I also believe that the waterfront site holds much potential as the waterfront can be the future foc point of a Buffalo renaissance.

4/17/01 9:21:16 AM
Nancy Piatkowski

115 North End
Kenmore NY 14217
Topic: convention center site

This area is alll to willing to sacrifice what could be rehabitable buildings for what is called "progress". Why d need to spend millions to build a new convention center when the rest of the area is falling apart. If a new ce is built what happens to the old one? Another abandoned hulk like the Aud or Central Terminal? Perhaps the money and energy for yet another commission and study should be put into fixing what we have to encourag people to reclaim downtown for living and working. I may live in Kenmore but my work and life take me into city on a daily basis and I am appalled by what I see. We are locked into a bigger and supposedly better mentality and like the emperor "we ain't wearing any clothes". The same tired old men keep making the dec that the rest of us have to pay for- frankly I'm tired of it. Take the money and first of all fix the schools, fix housing. Make the effort to clean up the area- garbage and abandoned buildings to put it bluntly do nothing encourage people to visit or live in the area. put it bluntly do nothing to enhance the area's image.

4/17/01 9:35:18 AM
Bri

Saint James Place
Buffalo NY 14222
Topic: Waterfront Site - Best Alternative

The waterfront site by far is the best sight for the new convention center. Lets start to make use of all the va land on our beautiful waterfront instead of demolishing the viable infrastructure located in the "Electric Distri Access to all the hotels downtown is achieved by the light-rail, taxi or walking and parking will be abundant i location. The location also offers easy accessibility from the Thruway, Skyway, railroad, light-rail, and the air without hassle (more so if the plans for the transportation hub in the old Aud come to fruition). Please listen the public's opinions on this matter. A lot of what has been done in this area in the past was without public opinion and consent. Recently, with the Inner Harbor Project, the public spoke up and voiced their opinion's, hence stopping the "replica slip" and restoring what has been recently been excavated. Let the public decide where the new convention center should be built, not the politicians, not big business, not the people who wi gain great financial wealth for building it else where, but the public.

4/17/01 4:38:48 PM
Jeanne Makai

10096 Larkin Road
North Collins New York 14111-9777
Topic: Convention Center

Buffalo has bigger problems than a new Convention Center. They should be remedied first Renovate the exis Convention Center (and do NOT enlarge it either) and stop tearing down what is left of Buffalo's old, beautifu buildings. Renovate them.....they give the city Class ! We need Buffalo's proud History to build a proud Futu We need a city that we can point to a building and tell our children's children, "When your Great Great Grandfather came to America he started his own business there" That will ensure pride in future generations Thats when people are proud of the city they are from and invite others to see it. . . No better publicity than "word of mouth" of people who love their City . A city can't be saved after it's been destroyed. A new conven center will do NOTHING to improve Buffalo or intice visitors here.

4/17/01 8:11:12 PM
Jean Dickson

631 Crescent Ave.
Buffalo NY 14216
Topic: the proposed convention center

I am not convinced that we need a nw convention center. It would certainly be another Buffalo disaster, if w were to demolish several blocks of downtown buildings in order to build another huge structure. I am also concerned that any building not be done at the expense of the taxpayers of the city, almost none of whom w really benefit from such a building. I would suggest that there are much more important projects for Buffalo.

4/18/01 8:36:38 AM
Karen Miller
concerned citizen
143 Dexter Terrace
Tonawanda NY 14150
Topic: New convention center

My first choice would be no. 4 - do nothing and save a bundle. To my way of thinking, and after reading abo Boston's lack of financial success with their new center, the money can be used for better projects. This will create minimum wage jobs and this area needs better than that. The construction jobs will probably go to ou state companies (do I sound cynical?) and even those will have limited impact. If we must waste time and m on a new center then let it be built on the waterfront so historic buildings and viable businesses won't lose o

4/18/01 10:18:47 AM
Phil Marcello

10420 Rt. 39
Springville, NY 14141
Topic: the proposed convevtion center

A comprhensively-designed convention center should be built next to the airport, the present convention cer should be imploded so that the original street pattern can be restored, and downtown should be re-configure become pedestrian and (possibly) vehicular-friendly. The NFTA should begin to realize that the dinosaurs tha rove the main lines should be replaced by vans that can be scheduled more flexibly to and from where the p are. Basically, a convention center should be considered the magic bullet to cure the decades of urban degeneration. Sure, conventioneers can come to downtown, but then what? Oh, yes, baseball, hockey, the BPO...that's where the NFTA vans pick the slack.

4/18/01 11:25:05 AM
Harvey Garrett
ClientLogic Corporation
414 Richmond Avenue
Buffalo NY 14222
Topic: New Convention Center DownTown

Do not put a new convention center downtown. Buffalo doesn't have enough activities in it's downtown area attract sufficient interest for convention goers. I attend conventions all over the world (mostly US) - Buffalo ready. It will not generate enough revenue to make it worth while. Let's concentrate instead on improving th down town area so that businesses, residents, and tourism can thrive. Please, no more mistakes.

4/19/01 9:07:44 PM
John Segmen. PhD, Psychologist
Analytical Psychology Society of Western NY
408 Franklin St.
Buffalo NY 14202
Topic: First of all, do no harm (regarding Convention Cen

First choice: Do Nothing (best option, least expensive) Second Choice: Waterfront site. (least harmful action Third Choice: Spruce up current site. Fourth choice, not acceptable, Mohawk Site (maximum damage, expen without recompense--little likelihood of ever recovering any of the investment.)

4/21/01 10:27:46 AM
Nancy Vargo
Wolf Group Buffalo
40 Fountain Plaza - Suite 250
Buffalo NY 14202
Topic: Social and Economic Issues

The future of Buffalo's economic success is dependent on a variety of factors. Private and public investment i housing, retail ventures, and office space in Downtown Buffalo is cruicial to the survival of the area. The construction of a new, adequate, and expandable convention center would serve as the core of the necessary development by providing jobs during the construction period and after the center opens. Attracting people t Downtown Buffalo, whether it's for work or to attend a convention, gives the city the opportunity to showcas itself and attract more business and residents. Granted, the construction and reality of a convention center c operate in a vacuum and generate business without community support in the form of other intelligent urbar development. I can't state it strongly enough. Buffalo absolutely needs a new convention center. The city wil without the influx of money brought in by out-of-town convention attendees and the jobs and new businesse those visitors will attract. The current center is not at all competitive with comparable cities. It does not hav ammenities and space to attract conventions and generate the economic advantages that Buffalo needs and deserves. Just build a new convention center.

4/21/01 12:49:29 PM
jack foran

388 Crescent Ave.
Buffalo NY 14214
Topic: proposed convention center

I am totally opposed to the Mohawk site alternative. We can't tear down functioning buildings/structural bloc downtown. I could go go along with any of the other three alternatives.

4/23/01 3:28:26 PM
James Rozanski
Citizens for Common Sense
92 West Winspear Avenue
Buffalo NY 14214
Topic: all

Include the following comments: Development Objectives: · Provide Erie County with the best value for its m by comparing the costs and benefits of spending the estimated $200 million cost for a new convention cente

with spending that money on multiple smaller investments (total $200 million) for creating a total neighborh in downtown. Money would be invested in businesses and housing by rehabbing existing buildings and buildii new infill buildings. Public green space and retail would be a strong part of the mix. · The recent RUDAT (Reç Urban Design Assistance Team) recently provided an unbiased expert study with recommendations to develc housing at the Lafayette Square and Genesee - Chippewa Street areas among other downtown sites. The Mo site should be evaluated as to best use in the context of these recommendations. · Any new convention cent must be planned as part of a total neighborhood, such as was done in San Francisco with Yerba Buena garde Environmental Issues /Green Design: The best "sustainable planning / green design" would be to build nothii The next best would involve the continuing use or adaptive reuse of existing buildings. Use of vacant underutilized land (e.g. surface parking lots) would be the most environmentally sound use of land for a new building. These factors should be added to the Green Design Criteria. Proposed Action: · New information in reports such as the 2000 Census should be reviewed and included in the EIS. Recent reports on the national downward trend in convention business and the large recent increase in available convention center space m be reviewed. · The unrealized expectations of large convention centers such as Chicago must be reviewed, si these large centers are now joining in the competition for smaller conventions. · The effects of the new convention facility in Newstead must be studied. Alternatives: 1. Add the site bounded by Clinton, Elm, Nortl Division, and Ellicott Streets to the list of alternatives. Only one building might need to be razed. It would pr an impetus to redevelop the Lafayette Hotel (See RUDAT Report). 2. On a regional basis Niagara Falls needs be considered as perhaps a better location for a regional convention center. It would be ineffective to promo two new centers in such a small region.

4/23/01 8:50:54 PM
Lynn Davis dmg world media

Topic:

4/23/01 8:51:47 PM
Lynn Davis
dmg world media
325 Essjay Rd #100
Williamsville
Topic:

4/23/01 9:49:03 PM
Lynn Davis
dmg world media
325 Essjay Rd #100
Williamsville NY 14221
Topic: Buffalo Convention Center

As Show Manager of the Buffalo Home and Garden Show presented by First Niagara Bank I have great intere the EIS study and the future of the Buffalo Convention Center. Although the Center staff is most accomodatii the facility is inconvenient for consumer shows. Parking during the week is a nightmare...thus the Show is or open in the evening on weekdays with the exception of Friday when the Show opens at 11:00am. Exhibitors consumers complain about how difficult it is to find parking since all of the adjacent lots and ramps are full. (please note that suburban facilities..Clarence and Hamburg.. usually offer free parking for exhibitors and consumers alike.)Move-in and move-out of the Home and Garden Show is incredibly difficult. The Center onl' 5 loading docks on Pearl Street which enable exhibitors to access the second floor. Exhibitors on the first floc unload on Franklin Street and are forced to double and triple park in order to move-in and out of this facility. am very concerned about the plan to convert Franklin Street to a two way street... how it will be feasible for move-in and out of this facility? Will the County and/or City assist convention and show coordinators in prepa for traffic logistics..not to mention additional fees that will be incurred. If no action is taken and the facility remains "as is" we must address the parking issues as well as the issues of traffic and access to the facility....these same issues must be discussed should the facility be renovated or expanded. If the EIS study determines that a new facility is in order; which I sincerely hope is indeed the case, the location is of great importance. I am doubtful that either of the proposed locations..Mohawk/Waterfront... will allow for adequat parking, a headquaters hotel (physically connected), a truck staging area,adequate loading dock space, acce public transit, green space etc. I would strongly urge you to look at other second tier cities such as Pittsburg Cleveland, Minneapolis, Columbus etc. and review floorplans, locations etc. Please note that dmg world medi

produces over 120 events each year in facilities all over the world. I would strongly recommend that you spe
Paul Schweitzer, our Vice President of Mergers and Acquisitions, to hear his comments about the tradeshow ,
consumer show industry and facilities. Paul is an both an expert and a veteran in this industry and would offe
wealth of information. You can reach Paul at 716 631-2266 ext. 107. My comments here merely addressed t
tip of the iceberg. As we all know, this facility is not competitive when you compare it to other "sister" city
facilities. I am in hopes that some day soon Buffalo will have a beautiful, functional, state-of-the-art convent
center to host conventions, shows, conferences and community events.

4/24/01 1:37:59 PM
Paul Schweitzer
dmg world media
325 Essjay Rd
Williamsville New York 14221
Topic: Don't Make the Same Mistake with Location

I am employed by dmg world media as their Vice President of Business Development - Home Interest Sectio
With our main offices in Toronto and London, we have produced hundreds of trade shows and consumer sho
around the world. Having been in the Trade Show industry for 21 years I have had the opportunity to visit m
every convention center in North America. What I have noticed in most cities where successful convention ce
have been built is that they tend to be in areas that make future development quite easy. Seldom, though th
are exceptions, are convention centers jammed into the center of the business district or even in areas that
currently developed (like the proposed Washington Street site) Rather they are usually built in areas with
available vacant land (like the waterfront site) cann be developed along with the Convention Center. I can na
numerous cities that built convention centers on vacant land and then ultimately developed around them. I.E
Baltimore, Pittsburgh, Houston, Long Beach, Jacksonville, Tampa, West Palm Beach,Atlanta, Boston's new fa
St Louis,Providence, Austin. Everyone of these cities built on the fringes of downtown where there was plent
space to develop the things that conventioneers and tourist want to see. Last week I was in Baltimore again
it breaks my heart to see what they have been able to do there around a mediocre waterfront. What should
Buffalo be able to develop around one of the Great Lakes! If we look nowhere else for guidance, we should lo
to Baltimore as to what an industrial, midsized city can do with its waterfront, using a new convention cente
catalyst. I would be happy to share my observations of convention centers around North America.

B

Phase IA Cultural Resources Investigation

Panamerican Consultants, Inc.

Buffalo Branch Office
2390 Clinton Street
Buffalo, NY 14227-1735
Tel: (716) 821-1650
Fax: (716) 821-1607

Corporate Headquarters
924 26th Avenue East
Tuscaloosa, AL 35404
Tel: (205) 556-3096
Fax: (205) 556-1144

Memphis Branch Office
15 South Idlewild
Memphis, TN 38104
Tel: (901) 274-4244
Fax: (901) 274-4525

Tampa Branch
1207 N. Himes Avenue
Suite 5
Tampa, FL 33607
Tel: (813) 873-9606
Fax: (813) 874-5409

PHASE IA CULTURAL RESOURCES INVESTIGATION

FOR THE PROPOSED

BUFFALO CONVENTION CENTER ALTERNATIVES,

CITY OF BUFFALO, ERIE COUNTY, NEW YORK

Prepared for:

ERIE COUNTY
DEPARTMENT OF ENVIRONMENT AND PLANNING
95 Franklin Street
Buffalo, New York 14202

under contract to:

ECOLOGY AND ENVIRONMENT, INC.
368 Pleasant View Drive
Lancaster, New York 14086

Prepared by:

PANAMERICAN CONSULTANTS, INC.
2390 Clinton Street
Buffalo, New York 14227
(716) 821-1659

July 2001

PHASE IA CULTURAL RESOURCES INVESTIGATION

FOR THE PROPOSED

BUFFALO CONVENTION CENTER ALTERNATIVES,

CITY OF BUFFALO, ERIE COUNTY, NEW YORK

Prepared for:

ERIE COUNTY
DEPARTMENT OF ENVIRONMENT AND PLANNING
95 Franklin Street
Buffalo, New York 14202

under contract to:

ECOLOGY AND ENVIRONMENT, INC.
368 Pleasant View Drive
Lancaster, New York 14086

Prepared by:

Michael A. Cinquino, Ph.D., Co-Principal Investigator/Senior Archaeologist
Christine M. Longiaru, M.A., Co-Principal Investigator/Architectural Historian
Mark A. Steinback, M.A., Senior Historian
Frank J. Schieppati, Ph.D., Senior Archaeologist
Zoë Zacharek, M.A., Cultural Anthropologist/Research Assistant

PANAMERICAN CONSULTANTS, INC.
2390 Clinton Street
Buffalo, New York 14227
(716) 821-1650

July 2001

Management Summary

PROJECT BACKGROUND

Panamerican Consultants, Inc. was contracted by Ecology and Environment, Inc., under subcontract to the Erie County Department of Environment and Planning, to conduct a Phase IA cultural resources investigation for the proposed Buffalo Convention Center alternatives. Erie County has proposed to construct a 400,000 to 425,000 gross square-foot convention center with a 125,000 square-foot (sq-ft) main exhibition hall, as well as construction of a minimum 1,250-space parking facility within the boundaries of the project site. Three sites within the City of Buffalo have been identified for the location of the proposed convention center. The Phase IA study was conducted for three proposed alternatives:

1) The Mohawk Site (Site A) comprises eleven acres (4.4 hectares) between Main Street on the west, Blossom Street on the east, East Huron Street on the north, and Broadway on the southern periphery;

2) The existing Convention Center Site (Site B), owned and operated by Erie County, is a 180,000 sq-ft, two-story building containing a 63,000-sq-ft main exhibition floor on the upper level. Its expansion would extend its boundaries to Main Street on the east, Court Street on the south and Pearl Street on the north. Franklin Street would remain its western boundary;

3) The Waterfront Site (Site C) is located south of the central business district in an area that historically has been identified with manufacturing and industrial operations. The present site is a parking lot bounded roughly by Washington Street (west), Michigan Street (east), Scott Street (north), and Perry Street (south).

The purpose of the survey was to identify any previously recorded cultural resources that may be impacted by the proposed construction of the project and to assess the likelihood that unrecorded resources may be present at the three proposed site locations for the new convention center. The investigation included a site file and literature check, archival and documentary research, a site inspection visit, and photographic documentation of structures within the three proposed site locations.

The cultural resource investigation was conducted in compliance with the New York State Environmental Quality Review Act (SEQRA), the State Historic Preservation Act (SHPA), and all relevant federal legislation. The investigation was also conducted according to the New York Archaeological Council's (NYAC) Standards for Archaeological Investigations.

ARCHAEOLOGICAL RECOMMENDATIONS

Prehistoric Resources: The extensive prior disturbance and urban development activities at these sites (A, B, and C) have largely destroyed any potential for locating intact prehistoric remains. Based on this extensive prior disturbance, the prehistoric sensitivity and the probability of discovering intact prehistoric cultural resources at Site A, B, or C is very low. Therefore, no specific plan is recommended to identify undiscovered prehistoric sites at Site A, B, or C. The investigation recommended for identifying potentially buried historic period deposits will be more than adequate to identify any prehistoric site deposits.

Historic Resources. As appropriate, mechanical testing will be required at each site due to the urban setting. A backhoe will be required to remove enough overburden to reach any potential deposits that may be buried six-to-ten feet below the present ground surface. All safety laws and regulations should be implemented during subsurface excavations. The following is a brief discussion of each site.

Mohawk Site (A). There is a high to moderate likelihood that buried historic cultural deposits are present at various locations throughout the Mohawk Site (A). These resources may consist of structural remains and associated features of residential and commercial buildings, historic middens and associated artifacts. Phase IB subsurface investigations are recommended at the site before any earth movement or construction is initiated. We recommend a series of backhoe trenches and a number of pits to determine if any intact deposits are present at the site. The trench width and length will vary depending on site conditions.

Existing Buffalo Convention Center (B). The existing Buffalo Convention Center occupies more than half of Site B. Previous structures within the footprint of the existing structure were demolished during construction of the present facility (ca. 1978). The extent of disturbance to historic resources in this area is significant. No additional Phase IB testing is recommended within the existing convention center location west of Pearl Street at Site B.

The portion of Site B east of Pearl Street was the location of several historic period structures. This area is historically sensitive and Phase IB testing is recommended in locations where previous structures existed. We recommend a series of backhoe trenches and a number of pits to determine if any intact deposits are present at the site. The trench width and length will vary depending on site conditions.

In addition, testing should be conducted to locate potential plank and log road remains if impacts to the street go beyond approximately three feet in depth. If road construction or excavations are associated with this alternative, the possibility of uncovering remains of a log road should be investigated before construction in this location is initiated. In this area, we recommend a series of backhoe trenches and a number of pits to determine if any intact deposits are present under the street.

The sensitivity of Site B ranges from low at the present location of the existing convention center and moderate to high at the location of the site east of Pearl Street.

Waterfront Site (Site C). None of the Waterfront Site structures documented on the Sanborn maps (1889-1925) are extant. The area currently consists of an asphalt parking lot. Although the structures were demolished, there is a high potential for the existence of buried deposits. It is unlikely that construction of the parking lot seriously impacted all previously existing buried historic resources at the site. Based on the archival and map research, and general impacts associated with parking lot construction, the Waterfront Site (C) has a high potential for archaeological sensitivity. A Phase IB investigation is recommended throughout the property before any earth movement or construction is initiated. A Phase IB testing strategy similar to that outlined for Site B is proposed for the Waterfront Site.

ARCHITECTURAL AND STRUCTURE RECOMMENDATIONS

The objective of the present Phase IA architectural reconnaissance level survey was to document and identify structures within and/or adjacent to the proposed new Buffalo Convention Center Sites (A, B, and C). Construction of a new 400,000 to 425,000 gross square foot facility in Buffalo's central business district will not only affect the city's existing historic building stock, but the city's urban character as well. A total of 53 structure were identified within the proposed locations for the new convention center. This study concludes that seven properties are potentially eligible for inclusion in the National Register of Historic Places (NRHP). One structure, 504 Washington Street, is potentially eligible as a contributing component of the existing National Register Eligible (NRE) 500 Block Historic District. All of the recommended properties are located in the Mohawk Site (A).

If either the Mohawk Site or the existing Buffalo Convention Center Site is the selected alternative, it is recommended that the lead agency avoid or minimize impacts to all NRHP eligible or potentially eligible properties on or adjacent to the site. If avoidance is not feasible then the lead agency should obtain an NRHP eligibility determination from New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP) for all potentially eligible structures. Any National Register Eligible structures proposed for demolition must be mitigated. Adequate architectural recordation measures as well as the level of documentation required for any eligible structures will need to be established with NYS OPRHP consultation. Mitigation measures may include Historical American Building Survey/Historic American Engineering Record (HABS/HAER) recordation or similar type documentation. No level of documentation should be conducted without NYS OPRHP approval. Copies of this documentation should be submitted to NYS OPRHP and to appropriate local archives designated by NYS OPRHP and Erie County. A site by site discussion follows.

Mohawk Site (A). The Mohawk Site is the most architecturally sensitive of the three alternatives. Presently, the site includes seven properties that are potentially eligible for listing in the National Register.

The Mohawk Site consists of 46 commercial, retail and light industrial buildings that range from one-part commercial blocks (338-340 Ellicott Street) to multi-storied, two-part vertical blocks (500 Washington Street). However, most of the building stock consists of three-story, two-part commercial blocks (500 Block Historic District). The site also contains a mid-twentieth century parking ramp. Older commercial buildings dating from the mid-to-late nineteenth century are located on the west side of Main Street and along the south side of East Genesee Street. The northwest quarter of the Mohawk Site contains the largest concentration of buildings while the remainder of the site consists of intermittent commercial rows, isolated buildings and asphalt parking lots. Since the 1960s, approximately 27 buildings in the limits of the Mohawk Site have been demolished.

Potentially National Register Eligible (NRE) Properties. This study identified seven properties on the Mohawk Site that are potentially National Register Eligible with one building (504 Washington Street) potentially eligible as a contributing component of the existing NRE 500 Block Historic District. No historic districts were identified as potentially National Register Eligible in the Mohawk Site study area.

6 Blossom Street (or 317 Ellicott Street) (Unique Site Number [USN] 02940.003119). This two-story, Italianate-style outbuilding is potentially eligible for inclusion in the NRHP (under Criteria A and C) as the only surviving example of a late nineteenth century stable in the central business district of the City of Buffalo.

36 Broadway (USN 02940.003122). This late nineteenth century Second Empire-style commercial building is potentially eligible for inclusion in the NRHP (under Criteria B and C) as a surviving example of its type and for its association with Charles Ephraim Burchfield (1893-1967), a noted artist who worked in the area for a local wallpaper company H. Birge & Sons Company.

25 East Huron Street. The Burns Building is potentially National Register Eligible as a representative example of a largely intact early twentieth century (ca. 1919) loft building (under Criterion C). This six-story, steel-framed building features a high degree of integrity with its facade retaining many of its original architectural details including a mostly intact original storefront.

321 Ellicott Street. The main building of the Ferguson Electric complex is potentially National Register Eligible (under Criteria A and C) as a representative example of a late nineteenth century (ca. 1892) commercial building and for its association with the electric industry in the City of Buffalo. This three-story commercial building features largely intact Queen Anne detailing on its upper floors though its original storefront has been altered.

465 Washington Street (USN 02940.003047). The ca. 1909-1911 Sinclair Building (a.k.a. Remington-Rand Building) at 465 Washington Street may be potentially National Register Eligible (under Criterion C) as a good representative example of a largely intact early twentieth century commercial building and for its association with one of the city's leading architectural firms of the period, Esenwein and Johnson. The firm is best known for their work at the 1901 Pan American Exposition, the Niagara Mohawk Building (formerly the General Electric Building), Lafayette High School, and a number of Buffalo residences.

501 Washington Street. The ca. 1923 George Washington Building (Holling Press Building) is potentially National Register Eligible (under Criteria A and C) as an excellent example of an early twentieth century loft with a reinforced concrete frame and for its association with Buffalo's printing industry.

504 Washington Street (USN 00940.003054). This late nineteenth century Italianate-style commercial building is potentially eligible as a contributing component of the National Register Eligible 500 Block Historic District.

Existing Convention Center Site (B). None of the seven commercial buildings identified on the proposed existing Buffalo Convention Center Site (B) are potentially eligible for the National Register. This location mainly is comprised of the present 180,000 square-foot Buffalo Convention Center (ca. 1978), which occupies almost the entire square block bound by Franklin and Pearl Streets to the west and east, and Court and West Mohawk Streets to the south and north.

National Register Listed or Eligible Properties: Existing Buffalo Convention Center Site (B). Presently, no NRHP listed or eligible properties are located within the proposed limits of the existing Buffalo Convention Center Site (B).

Potentially National Register Eligible Properties. Due to substantial exterior and interior alterations and the lack of historic significance, none of the properties within the existing Buffalo Convention Center Site (B) meet the criteria for listing on the NRHP.

Waterfront Site (C). There are no historic building concerns in the Waterfront Site. Therefore no further architectural work is recommended if this alternative is selected.

Table of Contents

Management Summary ii
List of Illustrations and Tables ix
List of Photographs x

1.0 Introduction 1

2.0 Project Description and Background Research 3
2.1 Project Description 3
2.2 Environmental Setting 3
2.3 Documentary Research 8
2.3.1 Prehistoric Period 8
2.3.2 Historic Period 21
2.3.3 Archaeological Site File Review 34
2.3.4 Historic Map Analysis 39
2.3.4.1 Site A: Mohawk Site 43
2.3.4.2 Site B: Existing Convention Center Site 59
2.3.4.3 Site C: Waterfront Site 64

3.0 Archaeological Evaluation 72
3.1 Methodology 72
3.2 Results 72
3.2.1 Site A: Mohawk Site 72
3.2.2 Site B: Existing Convention Center Site 73
3.2.3 Site C: Waterfront Site 73
3.3 Recommendations 74

4.0 Architectural Reconnaissance and Inventory 77
4.1 Methodology 77
4.2 Results 79
4.2.1 Mohawk Site (Site A) 79
4.2.1.1 National Register Listed or Eligible Properties: Mohawk Site (Site A) 500 Block Historic District 82
4.2.1.2 Potentially National Register Eligible Properties: Mohawk Site (Site A) 83
4.2.2 Existing Buffalo Convention Center Site (Site B) 93
4.2.2.1 National Register Listed or Eligible Properties: Existing Buffalo Convention Center Site (Site B) 95
4.2.2.2 Potentially National Register Eligible Properties: Existing Buffalo Convention Center Site (Site B) 95
4.2.3 Waterfront Site (Site C) 99
4.3 Recommendations 102

5.0 Summary of Recommendations 105
6.0 References 107

Appendices

A. Photographs: Site A–Mohawk Site
B. Photographs: Site B–Existing Convention Center Site
C. Photographs: Site C–Waterfront Site
D. Vitae of Project Principals

List of Illustrations and Tables

Figure		Page
1	Proposed New Buffalo Convention Center Site Locations	2
2	Location of the Mohawk Site A	4
3	Location of the Existing Convention Center Site B	5
4	Location of the Waterfront Site C	6
5	Outer and Inner Lots of the Village of Buffalo, ca. 1804	26
6	The project areas in the City of Buffalo, Erie County, in 1866	40
7	The project areas in the City of Buffalo, Erie County, in 1880	41
8	Sites A and B superimposed on a bird's-eye view map of Buffalo in 1902	44
9	Site C superimposed on a bird's-eye view map of Buffalo in 1902	45
10	Southern section of Site A in 1986	46
11	Northern section of Site A between Washington and Oak streets in 1986	47
12	Northwest section of Site A in 1986	48
13	The existing convention center Site B in 1986	49
14	Site C in 1986. There are no structures presently on the site	50

Table		
1	Previously identified archaeological sites within or in the proximity to the proposed New Buffalo Convention Center locations	35
2	Historic Map Analysis of Sanborn Maps for the Mohawk Site (Site A)	51
3	Historic Map Analysis of Sanborn Maps for the Existing Convention Center Site (Site B)	61
4	Historic Map Analysis of Sanborn Maps for the Waterfront Site (Site C)	66
5	Architectural Inventory of the Mohawk Site (Site A)	87
6	Previously inventoried structures within the Mohawk Site (A) viewshed	91
7	Architectural Inventory of the Existing Convention Center Site (Site B)	96
8	Previously inventoried structures within the Existing Convention Center Site (B) viewshed	97
9	Previously inventoried structures within the Waterfront Site (C) viewshed with National Register determinations	101

List of Photographs

Photograph **Page**

Appendix A photo angle map A-2
A-1 Main Street from Mohawk Place Park showing the 500 Main Street block at right, facing north A-3
A-2 Main Street from near East Huron Street showing the 500 Main Street block at left, facing south A-3
A-3 Genesee Street from Main Street showing Theodore Roosevelt Plaza in the foreground and the Liberty Bank Building at left, facing northeast . . A-4
A-4 East Huron Street from Main Street with the Mohawk Site at right and the Niagara Mohawk Building to the left, facing east A-5
A-5 East Huron Street from east of Blossom Street, facing west A-6
A-6 Broadway from Niagara Square showing Mohawk Site, facing east-northeast A-6
A-7 Broadway from east of Blossom Street showing Lafayette Square in the distant left background, the Liberty Building at left, and the Rand building in the center background, facing west A-7
A-8 Washington Street from Broadway, facing north A-8
A-9 Washington Street from East Mohawk Place, facing south. Note the Buffalo and Erie County Public Library at the extreme left and the Hotel Lafayette in the left background A-8
A-10 Washington Street from East Huron Street, facing south A-9
A-11 Ellicott Street from Broadway with 36 Broadway at right. Facing north . . A-9
A-12 Ellicott Street from East Huron Street, facing south. Note Buffalo and Erie County Public Library over Ellicott Street in center background . . . A-10
A-13 Blossom Street from Broadway, facing north A-10
A-14 Blossom Street from East Huron, facing south A-11
A-15 Oak Street from Broadway, facing north. A-11
A-16 Hersee Alley from Oak Street, facing west A-12
A-17 Oak Street from East Huron, facing south A-12
A-18 West elevations of (from right to left) 495 Main Street, 501 Main Street, and 505 Main Street, facing northeast. These properties are not eligible as part of the 500 Block Historic District A-13
A-19 National Register Eligible 500 Block Historic District, from right to left: 501 through 537 Main Street, facing northeast A-13
A-20 West elevation of 501 Main Street, facing east. This building is not eligible as part of the National Register Eligible 500 Block Historic District A-14
A-21 West and south elevations of 515-517 Main Street, a contributing component of the National Register Eligible 500 Block Historic District, facing northeast. Note vacant lot at right A-15

A-22 National Register Eligible 500 Block Historic District, from right to left: 521 through 537 Main Street, facing northeast A-15
A-23 West elevations of 521 Main Street, at right, and 523 Main Street, at left, facing east. The former is not eligible while the latter is a contributing component of the National Register eligible 500 Block Historic District . A-16
A-24 West elevations of 525 Main Street, at right, and 529 Main Street, at left, facing northeast. Both properties are contributing components of the National Register eligible 500 Block Historic District A-17
A-25 West elevation of 535 Main Street, a contributing component of the National Register eligible 500 Block Historic District, facing east A-18
A-26 North and west elevations of 537 Main Street, a contributing component of the National Register eligible 500 Block Historic District, facing east A-19
A-27 Genesee Street Elevation of 537 Main Street, facing west A-20
A-28 Theodore Roosevelt Plaza and properties fronting East Genesee Street, facing southeast. A-21
A-29 North elevation of 5-7 Genesee Street, facing south. This property is not eligible as part of the National Register eligible 500 Block Historic District A-21
A-30 North elevation of 9 Genesee Street, facing southeast. This property is not eligible as part of the National Register eligible 500 Block Historic District A-22
A-31 North elevation of 11 Genesee Street, facing southeast. This property was initially not eligible as part of the National Register eligible 500 Block Historic District. In 1993 the ineligible determination for the building remained due to insufficient information provided for evaluation A-23
A-32 Genesee Street entrance to 11 Genesee Street, facing southeast. ... A-24
A-33 Washington Street elevation of 11 Genesee Street, facing west. The frontage on Washington Street is not eligible as part of the National Register eligible 500 Block Historic District A-25
A-34 East and north elevations of Howard's Shoes at 5 East Huron, facing southwest. Due to extensive alterations, 5 East Huron is not eligible as part of the National Register eligible 500 Block Historic District A-25
A-35 East elevation of 510 Washington Street, facing southwest. This seven-story concrete frame loft building is not eligible as part of the non-contributing component of the National Register Eligible 500 Block Historic District A-26
A-36 North and west elevations of 465 Washington Street (ca. 1909-1911), facing southeast. Originally known as the Sinclair Building, then the Remington-Rand Building, this six-story office building was designed by Esenwein and Johnson A-27
A-37 The Mohawk Parking Ramp (ca. 1955) at 477 Washington Street, facing northeast. Note Holling Press Building to the left. A-27

A-38 West elevations of the Holling Press Printing Company complex located at 499-501 Washington Street, facing northeast. The ten-story, concrete-frame building to the left is the original Holling Press Building, also known as the Washington Building A-28
A-39 Rear and north elevations of 501 Washington Street, facing southwest A-29
A-40 South and east elevations of 500 Washington Street, facing northwest A-30
A-41 East elevation of 502 Washington Street, facing west A-30
A-42 South and east elevations of 504 Washington Street, facing northwest. Note cast iron elements of storefronts A-31
A-43 West elevations of 517-525 Washington Street, from right to left, facing northeast. Note Niagara Mohawk Building at left A-31
A-44 West elevations of (right to left): 517 Washington Street, 519 Washington Street, and 525 Washington Street, facing southeast. Note Holling Press Building at right A-32
A-45 Catholic Charities Building located at 525 Washington Street, facing southeast. Note frontage on East Huron Street A-32
A-46 North elevation of the Burns Building at 25 East Huron Street, facing southwest A-33
A-47 West and north elevations of Burns Building at 25 East Huron Street, facing southwest. Note Holling Press Building to the left A-34
A-48 West elevation of 285 Ellicott Street, facing east. Note section of 36 Broadway at right A-34
A-49 South and east elevations of 290 Ellicott Street, facing northwest A-35
A-50 West and north elevations of 300 Ellicott, facing southwest. Note south side of East Mohawk Street with the north elevations of 47 East Mohawk and 465 Washington Street to the right A-35
A-51 North Elevation of 47 Mohawk Place, facing south-southeast A-36
A-52 West and south elevations of 301 Ellicott Street (The Emulso Corporation), facing northeast A-37
A-53 The Emulso Corporation complex at 301 Ellicott Street, facing southeast A-37
A-54 North and west elevations of 303 Ellicott Street, facing southeast A-38
A-55 West elevation of 317 Ellicott Street, Ferguson Electric complex, facing northeast A-39
A-56 West elevation of 321 Ellicott Street, Ferguson Electric complex, facing northeast A-40
A-57 South and east elevations of 317 Ellicott Street or 6 Blossom Street, facing northwest. This former stable was constructed in the Italianate style and now serves as a service building for Ferguson Electric A-40
A-58 Blossom Street elevations of the Ferguson Electric buildings, facing southwest A-41
A-59 Detail of Blossom Street elevation, Ferguson Electric complex, facing west-southwest A-42
A-60 East elevation of 332 Ellicott Street, facing west-northwest. A-43

A-61 North and west elevations of 337 Ellicott Street, facing southeast A-43
A-62 East elevation of 338-340 Ellicott Street, facing southwest. A-44
A-63 South and east elevations of 350 Ellicott Street, facing northwest A-44
A-64 36 Broadway, facing northeast A-45
A-65 42 Broadway, facing northwest A-45
A-66 South and east elevations of 50 Broadway, facing northwest A-46
A-67 Three-bay garage located at 2 Blossom Street, facing southwest A-46
A-68 180 Oak Street, facing northwest A-47
A-69 180 Oak Street, Blossom Street and Broadway elevations, facing north A-47
A-70 198 Oak Street, facing northwest A-48
A-71 200 Oak Street, facing southwest A-48

Appendix B photo angle map B-2
B-1 West side of Main Street (450 to 518 Main Street, from left to right), facing northwest B-3
B-2 West Mohawk Place from Main Street, facing west. Note northern end of the existing Buffalo Convention Center in the center with 478 Main Street at left and 496 Main Street at right B-3
B-3 West side of Main Street with L.L. Berger Building (500-518 Main Street), facing southwest B-4
B-4 Court Street from east of Pearl Street with the southeast corner of the existing Buffalo Convention Center at the extreme right, facing west. Note Niagara Square with the McKinley Monument and City Hall in the distance B-4
B-5 Pearl Street from Court Street, facing north. Note the Pearl Street elevation of the existing Buffalo Convention Center at left B-5
B-6 West Mohawk Place from Pearl Street, facing east. In the distance, on the north side of East Mohawk Place, this view also captures a portion of the Mohawk Site (A) B-5
B-7 The former alignment of Genesee Street from Pearl Street and West Mohawk Place, facing northeast. Note elevated walkway in left foreground connecting the existing convention center with the Hyatt Regency Hotel, left background. To the right is the rear elevation of the L.L. Berger Building B-6
B-8 Pearl Street from near the northeast corner of the existing Buffalo Convention Center, facing south. Note one of the spires from Richard Upjohn's St. Paul's Episcopal Cathedral in the distance B-6
B-9 Franklin Street from Court Street with the existing Buffalo Convention Center at right, facing north B-7
B-10 Franklin Street from just north of West Mohawk, facing south. Note the southwest corner of the National Register listed YMCA Building to the extreme left and the existing Buffalo Convention Center to the left B-7
B-11 West Genesee Street from Niagara Square showing the main entrance for the existing Buffalo Convention Center, facing northeast B-8

B-12 West Genesee Street from the existing Buffalo Convention Center, facing southwest. Note Niagara Square and the McKinley Monument (ca. 1907) and City Hall (ca. 1929-1931) in the distance. A section of the north elevation of the Buffalo State Office Building (ca. 1928-1931) is to the left, while the Statler Hotel (ca. 1921-1923) is partially visible at right B-8
B-13 East elevation of 450 Main Street, facing northwest B-9
B-14 East elevation of 456 Main Street, facing southwest B-10
B-15 East elevation of 460 Main Street, facing southwest B-11
B-16 East elevation of 472-474 Main Street, facing northwest B-12
B-17 East elevation of 478 Main Street, facing southwest B-13
B-18 North (West Mohawk Street) and west (Pearl Street) elevations of 478 Main Street, facing southeast B-14
B-19 South and east elevations of 496 Main Street, facing northwest B-14
B-20 The National Register eligible L.L. Berger Building at 500-518 Main Street, facing southwest B-15
B-21 East side of Pearl Street from Court Street, facing northeast B-16
B-22 West elevation of 255 Pearl Street, facing east-northeast. This late nineteenth century commercial building is adjacent to the southern edge of the proposed Existing Convention Center Site (B) B-16
B-23 The Pearl Street elevation of 450 Main Street, at right, and the west elevation of 267 Pearl Street, facing northeast B-17
B-24 Detail of left storefront of 267 Pearl Street, facing east B-18
B-25 Pearl Street elevations of 460 Main Street, 472-476 Main Street, and 478 Main Street, facing southeast B-18
B-26 The YMCA Building (ca. 1901-1902) at 304 Pearl Street showing the northern end of the existing Buffalo Convention Center in the path of the former alignment of West Genesee Street, facing southwest B-19
B-27 Franklin Street elevation of 304 Pearl Street, facing northeast. Note northwest corner of the existing Buffalo Convention Center at right . . . B-19
B-28 Walkway between 304 Pearl Street and the existing Buffalo Convention Center, facing northeast. Note column from portico of YMCA Building to right of center, and the L.L. Berger Building in the distant background B-20

Appendix C Photo angle map C-2
C-1 Scott Street from east of Washington Street, facing east C-3
C-2 Waterfront Site (C) from east of Washington Street, facing southeast . . C-3
C-3 Waterfront Site (C) from Scott Street, west of Michigan Avenue, facing southwest C-4
C-4 Waterfront Site (C) from Perry and Baltimore streets, facing northwest . C-4
C-5 Perry Street from Baltimore Street, facing west C-5
C-6 Perry Street from Washington Street, facing east C-5
C-7 Washington Street from Perry Street, facing north C-6
C-8 HSBC Atrium, Washington Street Elevation, facing northeast C-6

1.0 Introduction

Panamerican Consultants Inc. (PCI) was contracted by Ecology and Environment, Inc., of Lancaster, New York, to conduct a Phase IA cultural resource investigation for the proposed alternatives for a new convention center in the City of Buffalo, Erie County, New York, for the Erie County Department of Environment and Planning. The Phase IA study was conducted for three proposed alternatives: the Mohawk Site (Site A); the existing Convention Center Site (Site B); and the Waterfront Site (Site C). All the alternatives are within the City of Buffalo (Figure 1). Two of the proposed locations, the Mohawk Site (Site A) and the existing Convention Center Site (Site B), are located in the central business district of the City of Buffalo. These two sites are generally located between Franklin Street to the west and Blossom Street to the east. Huron Street is the approximate northern boundary and Court Street and Broadway form the southern periphery. The Waterfront Site (Site C) is located south of the central business district in an area that historically has been identified with manufacturing and industrial operations. At present the Waterfront Site is a parking lot bound by Washington Street on the west, Michigan Street on the east, Scott Street on the north and Perry Street on the south.

The purpose of the survey was to identify any previously recorded cultural resources that may be impacted by the proposed construction of the project and to assess the likelihood that unrecorded resources may be present at the three proposed site locations for the new convention center. The archaeological and architectural cultural resource investigation included archival and historic maps research, a site visit and walkover reconnaissance, an inventory of structures on each proposed site, site file and literature searches, prehistoric and historic background, examination properties listed with the National and New York State Registers of Historic Places, cultural resource sensitivity, and past disturbance at the site. Dr. Michael A. Cinquino served as Project Director, Co-principal Investigator and Senior Archaeologist, Dr. Frank Schieppati served as Senior Archaeologist, and Mr. Mark Steinback served as Senior Historian and prepared the historic background section. Ms. Christine M. Longiaru served as Co-principal Investigator/Architectural Historian. Field investigations (including architectural evaluations), photography, and cartographic analysis were conducted by Ms. Longiaru during May 2001. Ms. Zoë Zacharek assisted in background research and Mr. Martin Lewars prepared the graphics.

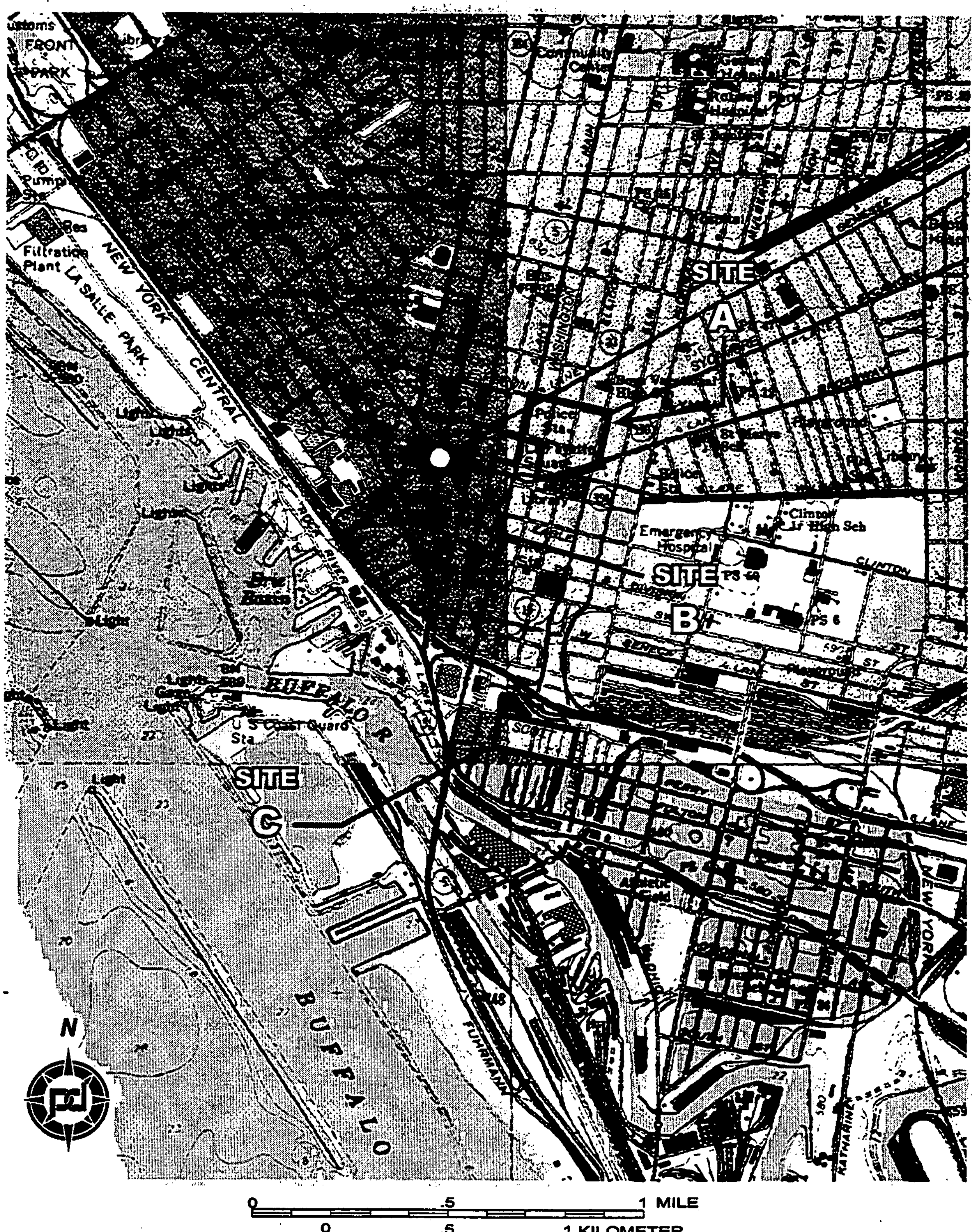


Figure 1. Location of Sites A, B and C within the City of Buffalo, Erie County, New York *(USGS 7.5' Quadrangles, Buffalo NW, NE, SE, NY 1989 [1965]).*

2.0 Project Description and Background Research

2.1 PROJECT DESCRIPTION

Erie County has proposed to construct a 400,000 to 425,000 gross square-foot convention center with a 125,000 square-foot (sq-ft) main exhibition hall, as well as construction of a minimum 1,250-space parking facility within the boundaries of the project site. Three sites within the City of Buffalo have been identified for the location of the proposed convention center (see Figure 1):

1) The Mohawk Site (Site A) comprises eleven acres (4.4 hectares) between Main Street on the west, Blossom Street on the east, East Huron Street on the north, and Broadway on the southern periphery (see Figure 2).

2) The existing Convention Center Site (Site B), owned and operated by Erie County, is a 180,000 sq-ft, two-story building containing a 63,000-sq-ft main exhibition floor on the upper level. Its expansion would extend its boundaries to Main Street on the east, Court Street on the south and Pearl Street on the north. Franklin Street would remain its western boundary (see Figure 3).

3) The Waterfront Site (Site C) is located south of the central business district in an area that historically has been identified with manufacturing and industrial operations. The present site is a parking lot bounded roughly by Washington Street (west), Michigan Street (east), Scott Street (north), and Perry Street (south) (see Figure 4).

2.2 ENVIRONMENTAL SETTING

Topography. The study area is situated within the Erie Lake Plain physiographic province, one of the two physiographic provinces of Erie County (the Allegheny Plateau is the other). The lake plain province is located along Lake Erie and the topography typifies an abandoned lake bed. There is little significant relief except for narrow ravines carved by the area's streams. Elevations within this physiographic province range from 570 to 900 ft (153 to 275 m) above mean sea level (AMSL). However, along its southern and eastern boundaries, the area has characteristics typical of glacial lake beaches where the topography quickly transitions to the Allegheny Plateau (Owens et al. 1986:2). Elevations within the project area range from approximately 615 ft (188 m) AMSL along Main Street between Sites A and B to approximately 580 ft (177 m) AMSL at Scott Street. Slope increases slowly to the north and east away from Buffalo harbor (see Figure 1).

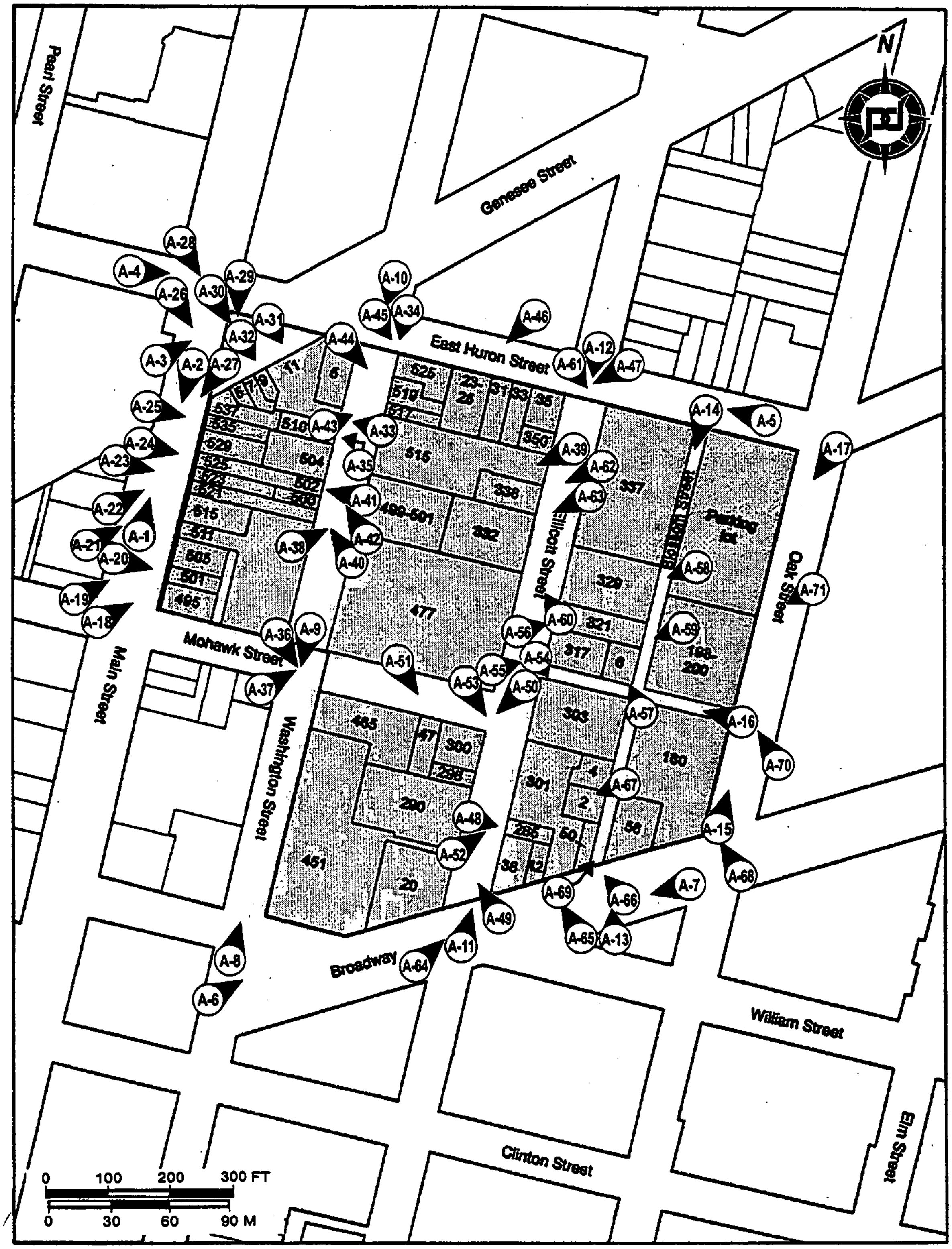


Figure 2. Location of Mohawk Site A and photographic angles.

(**Note:** photographic angles are presented in Appendix A.)

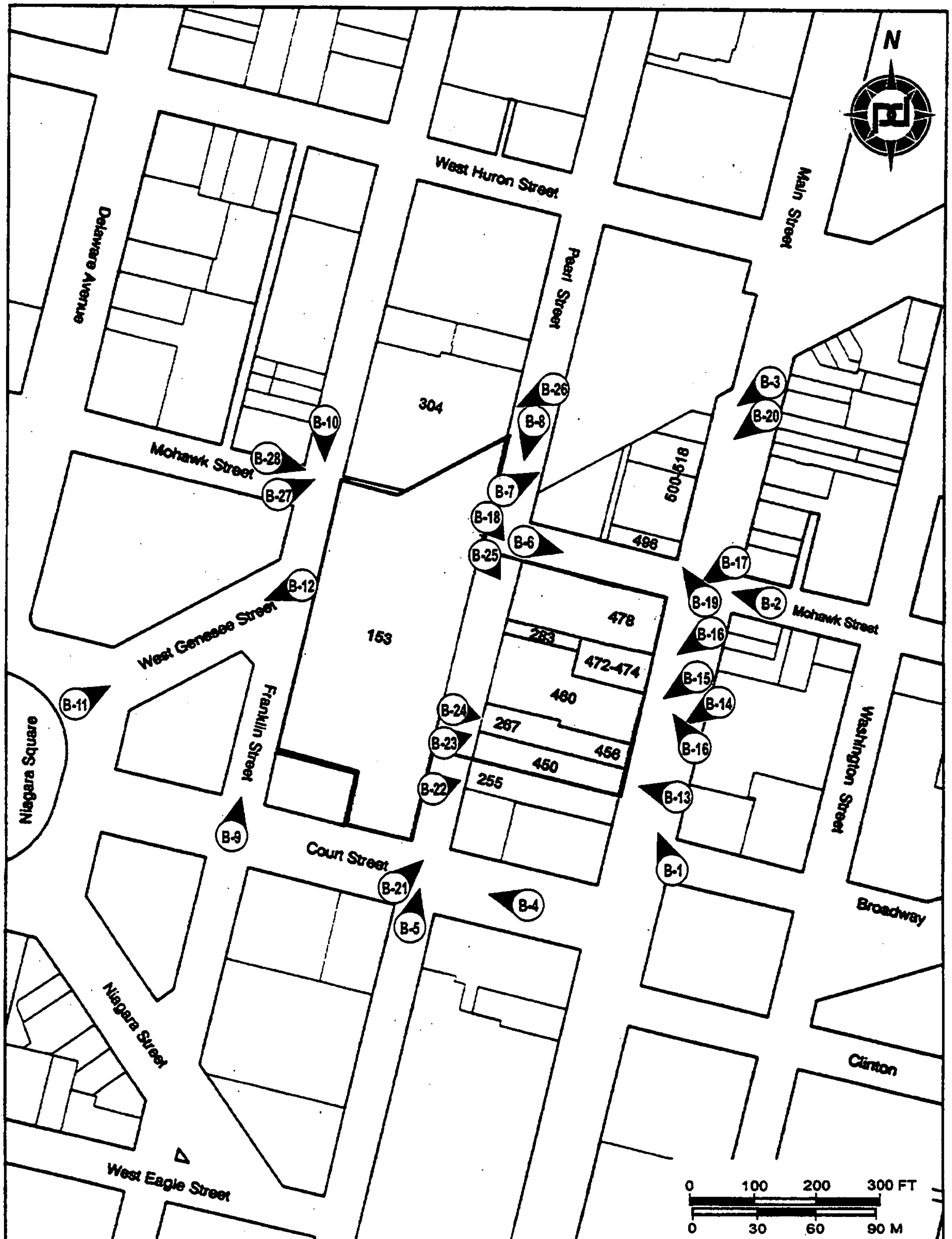


Figure 3. Location of existing Convention Center Site B and photographic angles.

(Note: photographic angles are presented in Appendix B.)

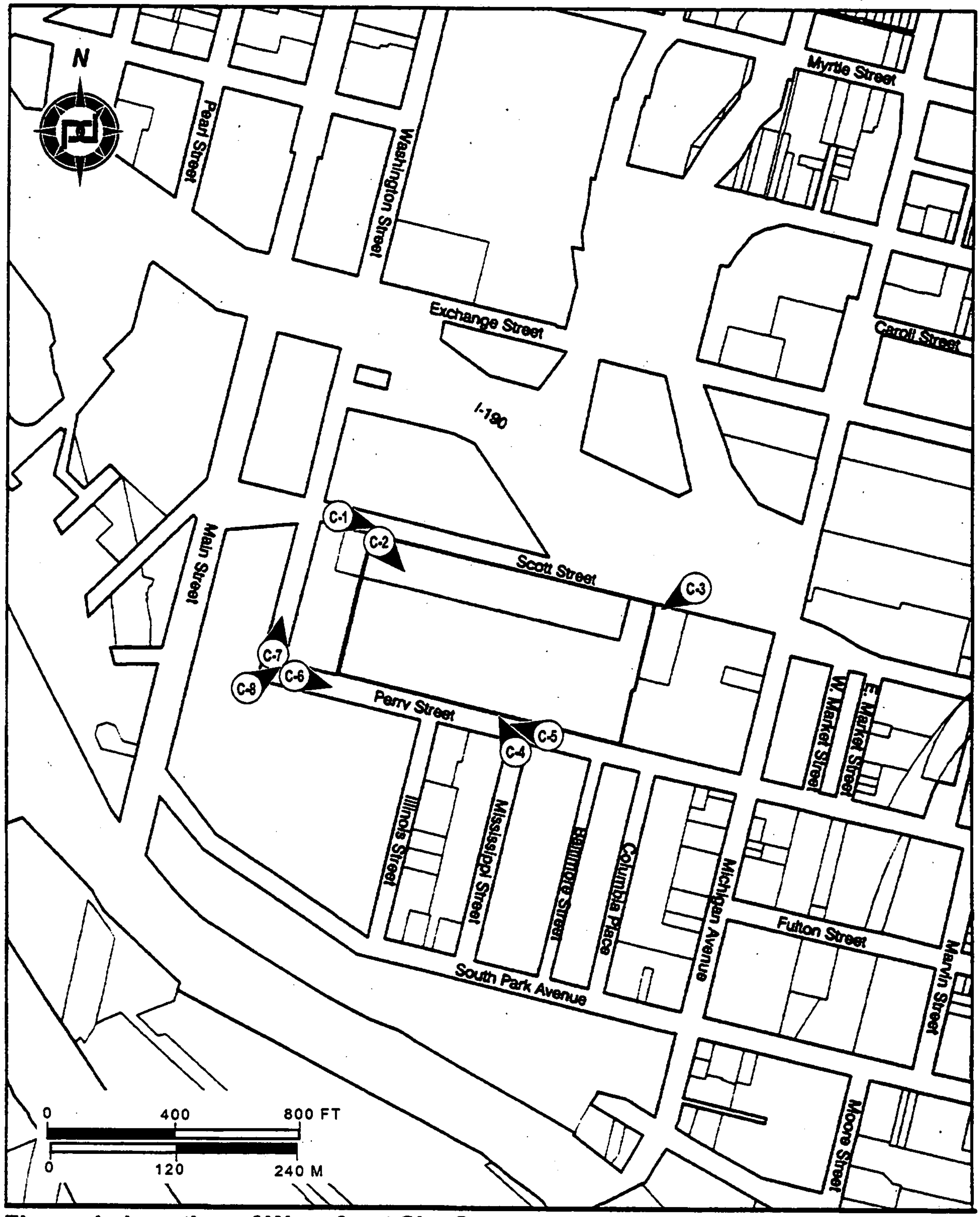


Figure 4. Location of Waterfront Site C.

(Note: photographic angles are presented in Appendix C.)

Geology. Bedrock beneath the proposed convention center alternatives consists of Onondaga limestone (Owens et al. 1986:3-4). It lies deeply buried beneath glacial deposits and no rock outcroppings are visible on the ground surface. This formation is notable for chert nodules it includes as they were the primary prehistoric lithic resource used in western New York. Relatively flat, the bedrock underlying Erie County tilts to the southwest at approximately 50 ft (15 m) per mile (Owens et al. 1986:2-4).

Soils. Soils within of each of the three proposed convention center alternatives are classified as Urban Land (Ud) (Owens et al. 1986:General Soil Map, sheet 41). Soils classified as this type have not been mapped in detail because most locations are highly developed for commercial, industrial or residential uses and much of the ground surface is covered by impervious features such as buildings, roads and streets, and paved parking lots. Usually disturbed from construction activities, soils in this category are typically dominantly nearly level, disturbed, and range from well-drained to poorly drained (Owens et al. 1986: General Soil Map, sheet 41). Historically, the three locations proposed for the new Buffalo Convention Center have been continually occupied by structures since the early-to-mid nineteenth century. Therefore, foundations and associated artifacts could extend to deep soil horizons in all of these areas. Evidence from previous archaeological investigations in the City of Buffalo (Keller et al. 1981; Tronolone 1985; Tronolone and Cinquino 1986; Hayward et al. 2001) suggests that up to approximately six ft (2 m) of fill covers the natural ground surfaces along Main Street and between one and nine ft (0.3 and 3 m) of fill cover the surface near Site C. Buried cultural deposits have been discovered during archaeological investigations throughout the City of Buffalo (Hayward et al. 2001; Schifferli et al. 2000; Tronolone and Cinquino 1986; HAA 2000).

Urban land, 0 to 3 percent slopes, (Ud) is a nearly level miscellaneous area in which 80 percent or more of the soil is covered by asphalt, concrete, buildings, or other impervious structures including parking lots, shopping and business centers, and industrial parks (Owens et al. 1986:133).

Drainage. No streams or other naturally occurring water sources are located in the heavily urbanized locations for the proposed Buffalo Convention Center. The nearly two centuries of construction and development within the City of Buffalo, as well as the existing buildings and roadways, have altered any natural drainage patterns. The Mohawk Site (Site A) is approximately 4,000 ft (1,220 m) northeast of Lake Erie, and the existing Convention Center Site (Site B) is approximately 3,250 ft (991 m) northeast of the lake, although both sites would have been closer to the lake prior to the nineteenth century (Graham 1967). The Waterfront Site (Site C) is approximately 1,000 ft (305 m) northeast of the Buffalo River.

Vegetation. All three of the proposed alternatives for the new Buffalo Convention Center are located on urban land with no natural vegetation remaining. Strips of grassy areas and street trees exist between curbs and sidewalks in a few locations. Some

trees have been planted along Main Street since the construction of the Light Rapid Rail System.

Forest Zone. At the time of pioneer settlement in the early nineteenth century, the natural landscape consisted of Beech-Maple forest in which a beech-maple-biome dominated much of the somewhat poorly drained Erie lake plain (Miller 1973:15). Well-drained areas would have supported greater numbers of oak, hickory, pine and chestnut species. The northern portion of Erie County as well as areas along Lake Erie lie within the Elm-Red Maple-Northern Hardwood forest zone (de Laubenfels 1966:92). This zone reflects more recent conditions where poorly drained areas are widespread, the natural forest has been removed, and better drained areas have been utilized for agriculture. Despite the similarity of the climatic conditions between this zone and the Oak-Northern Hardwood zone, the prevalence of elm and red maple is due to human impacts to the environment (de Laubenfels 1966:95).

2.3 DOCUMENTARY RESEARCH

This section examines the existing literature on cultural resources in and around the proposed alternatives for the new Buffalo Convention Center and provides a review of the culture history of the region. This review will be developed, along with more specific information on sites in the area, to identify cultural resources that are present and that could be present in the project area. The first part of the section presents a review of the literature on the prehistoric culture history of Western New York. A summary of historical events after European-American contact and settlement follows. The section concludes with a subsection describing and evaluating recorded cultural resources in the vicinity of the project area.

2.3.1 Prehistoric Period. The three major cultural traditions manifested in Western New York State during the prehistoric era were the Paleo-Indian, Archaic, and Woodland traditions. Cultural evolution of the area can be summarized as a gradual increase in social complexity, punctuated by several important cultural and/or technological innovations. The earliest people were nomadic big-game hunters; changing environmental conditions required an adaptation of the economy, resulting in a shift to the efficient exploitation of temperate forest resources by Archaic hunter-gatherers. In many areas of eastern North America, the Archaic is followed by a Transitional period which bridges the Archaic and the subsequent Woodland period. While it does not represent a departure from Archaic social and economic patterns, important changes do occur in the artifact assemblage and in burial practices (Ritchie 1955; Nichols 1928). The Woodland tradition is marked by the introduction of pottery, agriculture, and burial mounds, and resulted in a plethora of new and very different social and economic adaptations.

After about 3,000 years ago external influences began to have an increasingly greater effect as the area was occupied by groups who later formed the Erie and

Neutral Confederacies. Culturally, they shared much with groups in southern Ontario, Canada. The tribes which eventually formed the Iroquois Confederacy evolved from antecedents in the central sub-area between the Genesee River and the Tug Plateau. There was very little intercourse between these groups and those of the western New York area until the seventeenth century.

The arrival of European commercial interests, missionaries and, finally, settlers profoundly changed land-use patterns. The native population was essentially removed from the land following the War for Independence, and completion of the Erie Canal, and later the railroads, transformed western New York from a collection of frontier settlements into one of the centers of industry in the nineteenth century. Away from the larger cities and villages, however, the area has maintained its rural character.

Paleo-Indian Period (ca. 11,050–8050 BC). The precise date of humans' arrival in North America is still debated in the professional literature. Access from eastern Asia via the Bering Strait land bridge was probably not possible prior to 40,000 years ago (Haag 1962). It was not until much later that the descendants of these peoples reached the northeastern United States. In New York, the last glacial retreat occurred approximately 13,000 years ago, followed by a series of changing environmental conditions.

The earliest dated Paleo-Indian site in New York is the Dutchess Quarry Cave in the Hudson River Valley (10,580 BC). At this time, Lake Ontario and the St. Lawrence River were locked in ice, and the Hudson River Valley does not appear to have been an ideal environment for occupation. "The poorest possible adaptive strategy for Paleoindian [sic] hunters would have been an entry into the boreal forests with their low yields of plants and animals useful to man" (Fitting 1975:27). It is possible that the environmental fluctuations that occurred during this early period were conducive to periodic forays by the Paleo-Indian groups into the region when conditions were suitable. As the climate gradually became more temperate, these forays may have become more extended.

Prior to 10,000 years ago, the ice had not retreated very far north of the lake and the Lake Ontario Basin was still somewhat inhospitable.

> In the Great Lakes, there is a late Paleoindian adaptation to newly drained high browse potential, between 9000 BC and 7000 BC. By 7000 BC, the lakes had reached their low point and started rising again, flooding boreal forests and creating an entirely different lake shore situation (about as favorable to human occupation as a cedar swamp) (Fitting 1975:28).

Technologically, the Paleo-Indian period has been associated with the fluted point industry. These points closely resemble the Clovis point, first discovered in the Southwest, and are generally classified as that type (Funk and Schambach 1964). The points are generally large (2.5 to 10 centimeters [1 to 4 inches] in length), with a flute on each face, produced when channel flakes were struck from the base. While many

suggestions have been made regarding the function of the flute, the most obvious is that it facilitated hafting (Snow 1980). Other items in the Paleo-Indian tool kit included leaf-shape and ovate bifacial knives, end-scrapers, often equipped with graving spurs, and unifacial side-scrapers, knives and retouched flakes. Drills, awls and gravers are also diagnostic Paleo-Indian tools.

The Paleo-Indian subsistence strategy has traditionally been viewed as one which emphasized hunting big game. These species, many of which are extinct, included mastodon, mammoth, caribou and moose-elk, along with a variety of smaller game. Few tool associations have been made with aquatic resources remains. However, it is difficult to imagine these people not utilizing such a diverse and abundantly available food source once water conditions allowed.

Ritchie and Funk (1973:333) have classified Paleo-Indian sites into two main categories: quarry workshops and camps. These categories are further subdivided into large, recurrently occupied camps, small special-purpose camps, and caves or rockshelter sites. Chert quarrying and the preliminary stages of tool production were carried out at the tool workshops.

The Paleo-Indian settlement system may have been similar to the subsequent Archaic stage system. During the seasonal peaks of resources, larger populations occupied strategically located large camps. During periods of low resource potential, the population dispersed, occupying small camp sites and rockshelters on a temporary basis.

A band level social organization is attributed to Paleo-Indian groups, with each band consisting of 25 or 30 people. These bands were initially "free wandering communities that moved frequently and without restriction, their direction, persistence and territory covered being controlled mainly by game movements and the abundance of other wild food resources" (Snow 1980:150, after Beardsley et al. 1956). As climatic conditions allowed more permanent occupation of an area, this wandering became more restrictive and bands settled into loose territories.

This general Paleo-Indian adaptive pattern overlapped the beginning of the subsequent Archaic period, leading some to refer to the earlier periods of the Archaic as a transitional stage.

Archaic Period (ca. 8050–1550 BC). The Archaic period is differentiated from the Paleo-Indian period by a stylistic shift in lithic assemblage, an apparent increase in population, changes in the subsistence strategy, and a less nomadic settlement system. Three subdivisions are generally recognized for the Archaic: Early, Middle, and Late (or Terminal).

Early and Middle Archaic (ca. 8050–4050 BC). Although the Early Archaic period began in the eastern United States as early as 10,000 years ago, there is no extant settlement data this early in the Northeast. It has been suggested that the lack of dated

sites in the Northeast prior to 10,000 years ago is due to the low carrying capacity of the postglacial boreal forest environment (e.g., Ritchie 1969; Fitting 1968).

> [T]he interval 8000-6500 BC was predominantly one of edible plant and game-poor, closed coniferous forests in much of the Great Lakes and the Northeast. After about 6500 BC there was a slow but accelerating eclipse of the conifer climax as ever more numbers and species of deciduous trees invaded from the south, introducing varieties of nut bearing trees and increasing populations of deer, bear, raccoon, turkey, and other game. An essentially modem environment was attained by about 3500 BC, more or less coincident with the Late Archaic Period which is ushered in accompanied by an obvious increase in the number and productivity of archeological sites (Mason 1981:132).

Some regional studies have shown more of a mosaic pattem of vegetational change than this model suggests (Muller 1977; Dincauze and Mulholland 1977). In a broad perspective, this environment was probably one of low carrying capacity until the establishment of the deciduous forest.

Most of what is known about the Early Archaic is based on data from outside the Lake Ontario basin. Since the lake level during this prehistoric period was much lower than at present, archaeological deposits left by people drawn to the lake margins would have been obliterated by the rising lake level—both by erosion and inundation. Although Early Archaic data is scant, it appears that big-game hunting was no longer central to subsistence and band movement was less erratic. It has been suggested that groups began to settle into territories and that camp movement adjusted to a seasonal round (Snow 1980). Floral resources, fish, and other aquafauna began to play a more significant role in subsistence.

A few technological changes, such as the production of ground and polished stone tools, serve to identify the Middle Archaic period. The bannerstone, probably used as an atlatl weight, and the bell pestle were Middle Archaic innovations (Griffin 1967). Changes in the cultural system were not qualitative; more elaborate planning seems to have been devoted to seasonal scheduling. "The ranges of activities carried out on special-purpose sites continued to narrow while the numbers and kinds of such sites utilized within a round continued to increase" (Snow 1980:183). The territorial "settling in" process begun during the Early Archaic continued into the Middle Archaic, stimulating a process of group isolation.

Since qualitative changes can not be seen between the Early and Middle Archaic periods, Mason (1981) does not distinguish them as separate periods. Instead, he views them as a single transitional period between the Paleo-Indian and the Late Archaic.

Late Archaic (ca. 4050–1550 BC). The Late Archaic is seen as the flowering of preceramic culture in the Northeast (Snow 1980; Mason 1981). The period begins about 6,000 years ago and continues to the advent of pottery around 1550 BC. During

this period prehistoric cultures "fully adjusted to the humid Temperate Continental climate which, with its oak-chestnut-deer-turkey biome, persisted to the present day" (Ritchie and Funk 1973). The increased carrying capacity of this richer and more diverse biome is reflected by an increase in the number, size, and kinds of sites documented in the archaeological record.

The relatively diverse and abundant biome provided a subsistence base which was much broader than that of previous periods. Food resources consisted of large game (deer and bear), small game, fish, shellfish, waterfowl, birds, insects, vegetables and fruits. This diversity not only allowed for greater procurement efficiency, it also provided a cushion against seasonal failures of any single resource. The general increase in numbers of milling and fishing tools suggests a shift away from red meat as a preferred resource.

While increased territorialization occurs during the Late Archaic, group isolation decreases. Communication and trade networks which characterize later periods have their developmental roots in this period. Burial ceremonialism, established in northern New England a few thousand years earlier (Tuck 1978), is conspicuously absent in some areas of New York and well developed in others. In New York, two contemporaneous Late Archaic cultural traditions predominate: the Narrow Point tradition, generally restricted to western and central New York, and the Laurentian tradition, evident through all of New York.

The Narrow Point tradition is recognized as the Lamoka phase. Most Lamoka phase sites are small, open camp sites, although large near-permanent base camps have also been identified (Ritchie 1980; Ritchie and Funk 1973). As with other Archaic peoples, Lamoka groups relied on hunting, fishing, and gathering. Deer and turkey were the preferred game, while in the floral group acorns and hickory nuts were impressively evident. However, the primary orientation of the culture was toward aquatic resources caught mostly with nets.

In contrast to the Lamoka, the Laurentian tradition is characterized by a primary reliance on hunting. This tradition, which is associated with the Lake Forest Archaic of eastern New York, Vermont, and New Hampshire (Snow 1980), is represented in this area by the Brewerton phase (3000-1720 BC). While some base camps are known for the Brewerton phase, the majority of sites are small, temporary hinterland camps on streams, marshes and springs. The emphasis on hunting is reflected by assemblages having large proportions of points and hunting gear. Fishing gear and nutting stones are also present, but not in the quantities known from Lamoka sites.

Brewerton and Lamoka peoples occupied similar environments, and contact between the two groups is evident in central New York. Brewerton mortuary customs were somewhat more complex than Lamoka, although neither group featured regular cemetery areas. Grave goods were confined to utilitarian objects and there is no hint of the mortuary ceremonialism of the following Early Woodland period (Ritchie 1980).

Transitional Period (ca. 1550–1050 BC). The Transitional period features a continuation of Late Archaic cultural and economic patterns, with only a few innovative traits. Among these are a developing burial/ceremonial complex and, toward the end of the period, the introduction of ceramics. Snow has characterized the period as Terminal Archaic, and "the stage/period was seen as technologically transitional from the preceramic Late Archaic to the ceramic Early Woodland via an episode of soapstone vessel manufacture" (1980:235). In New York, the Transitional period is manifested by the Orient and Frost Island phases. Because of their close association with cultural developments in the Susquehanna drainage, they are known as aspects of the Susquehanna tradition. The primary importance of the Orient phase is in its highly developed mortuary ceremonialism. However, the Orient phase culture was native to Long Island and generally restricted to the southeastern portion of New York.

On the other hand, Frost Island phase culture was generally situated in central New York with extensions into western and northern New York. Recognized by the Susquehanna Broad projectile point, numerous Frost Island phase sites have been found throughout this portion of the state, although few have been systematically investigated. Excavations at the Claud 1 Site in the Genesee Valley revealed that 25% of the lithic artifacts were made from exotic rhyolite, suggesting long-distance trade (Snethkamp 1974).

Frost Island burial practices are not well known. Indirect evidence suggests the practice of cremation, heavy use of red ochre, and deposition of caches of projectile points in graves. Such practices show a wide distribution in the Great Lakes on this general time level and through following centuries (Mason 1981:206).

Ritchie (1980) has characterized the Frost Island settlement system as riverine. This hypothesis was supported in the Genesee Valley where these sites were located no further than 1 mile (1.6 kilometers) from the river (Trubowitz 1978). This phase has been tentatively dated to 1595-1290 bc. This later date roughly corresponds to the beginning of the Early Woodland, Meadowood phase and to the displacement of steatite vessels by Vinette I pottery.

Woodland Period (1050 BC–AD 1500). The Woodland period in the Northeast can be characterized as one of innovation. While the previous hunting and gathering economy continued as a means of subsistence during Woodland times, native groups became more and more dependent on domesticated plants for food. This gradual shift to domestication is in itself less important than the ramifications of the shift. Agriculture brought with it a score of new problems that required new adaptations, and every aspect of native culture was transformed. With agriculture came settled village life, a general increase in population, technological changes, warfare, and a litany of social and political changes.

The earliest occurrence of horticulture and its ultimate role in the Northeast is problematic. According to Fitzer (1962), the indirect evidence for agriculture cited most

frequently in the literature are (a) the presence of stone, shell, or bone "hoes"; (b) earthworks; and C) storage pits. Additional attributes are contemporaneous with known horticultural groups, ecological location, and settlement pattern. Theoretically, a stable economy is necessary for earthwork construction, and storage pits were used for storing cultivated grain. The mere presence of "hoes" does not take into account that such artifacts can be used for pit construction or grave digging, or that edge polish may be the result of gathering activities. One must also consider that pits can also be used to store wild foods, and that a stable economy is possible without horticulture, as the preceding 5,000 years demonstrated.

In Caldwell's (1956) concept of "Primary Forest Efficiency," the relative abundance of wild foods facilitated a very highly developed hunting-gathering-fishing subsistence and could provide a stable economic base in the eastern United States. This economic stability provided time for elaboration of crafts, mortuary practices, and building earthworks, and thus, exerted no great pressure to develop horticulture. In our particular area, settlements prior to Owasco (Late Woodland) times never reached a size that could not be supported by hunting and gathering (Fitzer 1962).

Early Woodland (1050 BC–AD 1). The onset of the Woodland mode occurred gradually in the northeastern United States, and at somewhat different times throughout the region. The Early Woodland period is generally thought to have begun with the Meadowood phase about 3,000 years ago. Meadowood sites are found throughout the Northeast, and particularly New York.

Meadowood settlements appear to be year-round, primarily located near large bodies of water, such as the Niagara River. Granger (1978) suggests that the Meadowood settlement system operated on a seasonal fission-fusion cycle. The basic social unit, the local exogamous band, was composed of approximately 150 people occupying a territory of around 390 square miles (1,000 square kilometers). Marriage outside the band produced social linkage to other local bands, resulting in the formation of a regional band composed of around 500 people. In the autumn, winter, and early spring local bands operated from base settlements. In the spring and summer, the local group fissioned into smaller task groups, operating from resource extraction camps. Other specialized Meadowood site types include chert resource sites and mortuary activity sites, which were commonly shared by a number of local bands.

The Riverhaven Complex, located along the Niagara River on Grand Island, represents one of the most important and well-studied Meadowood phase assemblages (particularly Riverhaven 2) in the northeast. Riverhaven 2 appears to have been intensively and repeatedly occupied from late autumn to early spring. Several of the Riverhaven sites are located on high knolls adjacent to former marshes.

Meadowood technological innovations included: Vinette I pottery (which made its first appearance during the Transitional period), gorgets, clay and stone tubular smoking pipes, birdstones (which may have served as atlatl weights), and boatstones.

Copper was also introduced into New York from the western Great Lakes during this phase. Other typical Meadowood artifacts include thin side-notched projectile points, trianguloid cache blades, bone tools, copper beads, groundstone celts and adzes, and copper adzes. No definitive data exists concerning the nature of Meadowood dwellings, though a postmold pattern at the Scaccia Site in Livingston County appears to be oblong in shape (Ritchie and Funk 1973).

Mortuary ceremonialism, which had its roots in the Archaic and continued to develop through the Transitional period, became more developed during the Early Woodland. Typically, the dead were placed on scaffolds or in charnel houses, and were cremated after decay. Flexed, bundle and multiple burials also occurred. Grave offerings were numerous, consisting of cache blades (sometimes numbering in the hundreds), smoking pipes, gorgets, birdstones, copper, fire-making kits, and a generous sprinkling of red ochre. Often the grave offerings were purposefully "killed" (broken). Meadowood cemeteries were generally situated on knolls, a fundamental concept which may have been a precursor of the Middle Woodland artificial burial mound.

Cultural manifestations of the latter part of the Early Woodland in New York have been grouped into the early Point Peninsula tradition. This tradition is somewhat vaguely defined and is primarily recognized by the presence of Vinette pottery. In some areas of New York, Point Peninsula traits are found in conjunction with elements of the Ohio Adena tradition, comprising the Middlesex phase in New York.

The Middlesex phase is poorly delineated in New York, and is primarily known from burial sites. Typical Middlesex-Adena burial offerings consist of stone blocked-end pipes, cache blades, copper celts and awls, points, copper and shell beads, amulets, pendants, birdstones, and red ochre. These graves generally contain up to 30 percent Adena-inspired artifacts. Although Middlesex phase components are often found in association with Meadowood phase materials, the connection between the two is presently unclear. Moreover, explanations regarding the presence of Adena traits in New York are controversial. It has been postulated that Adena burial customs were the result of migrations of Adena peoples from central Ohio, forced from their homeland by the expansion of Hopewell culture (Ritchie and Dragoo 1960, Dragoo 1963). They presumably entered western New York through the Ohio and Allegheny Rivers, Conewango Creek, and possibly, the Genesee River. The question is raised, however, that if these cultural traditions were transmitted "in person," why are they reflected only in grave goods, and not in other kinds of mundane materials? A second hypothesis is suggested by this—that it is easier for an idea to migrate than groups of people. It is assumed that the networks of trade and communication which were established during the Archaic period along major waterways continued to grow during the Woodland period, becoming increasingly efficient (Spence 1967).

It can generally be said that sites farthest away from the Ohio Adena heartland will contain the fewest Adena traits. This concept is borne out by data across the state,

with the exception of the Long Sault Island Site in the St. Lawrence River. It is the site of the only known artificial Adena mound in New York, and contains a large number of artifacts manufactured in Ohio (Ritchie and Dragoo 1960).

Middle Woodland (AD 1–650). The Point Peninsula tradition, expressed primarily by ceramic traits, continues throughout the Middle Woodland period. Point Peninsula development during this period is characterized by four phases: Canoe Point (AD 2-150), Squawkie Hill (AD 100-300), Kipp Island (AD 300-650), and Hunter's Home (an early Late Woodland manifestation).

The Canoe Point phase is vaguely understood and known from only a few sites. It shows little change from the Early Woodland. "Subsistence, seasonality, and the larger settlement unit continued much as previously, although the settlement system was probably more decidedly semipermanent sedentary" (Snow 1980:274). No house structure patterns have been found in New York, but analogous Canadian sites show the presence of rectanguloid structures measuring 10-to-16 ft by 16-to-23 ft (3-to-5 m by 5-to-7 m), and containing single hearths. The single hearth and the house size would seem to indicate a basic household social unit no larger than an extended family.

In Western New York, the Canoe Point phase is overlapped by the Squawkie Hill phase, which is marked by the intrusion of the Hopewell burial cult from Ohio. Hopewell can be characterized as a body of material and behavioral traits associated with the burial of the dead. It is not clear whether Hopewell is a manifestation of a true cultural system, or simply a burial cult like the Adena. In the upper Midwest, Hopewell can be seen in its entirety. In New York, however, it is evidenced only by burial mounds, simple and small by comparison to those found in Ohio. New York mounds are generally about 30 ft (9 m) in diameter, and 3 or 4 ft (.9 to 1.2 m) high. Common ceremonial assemblages consist of cured base platform pipes, copper axes, copper ear ornaments, pearl beads, and mica. Polished stone celts and adzes, and red ochre are also found in New York burial mounds, although pottery is not. Burials are generally secondary cremations, and are rarely extended, flexed, or bundled.

The following Kipp Island phase is known from seasonal and semi-permanent camps and cemeteries. Hunting, gathering, and fishing appear to be the main sources of subsistence. While maize horticulture was well established in the Hopewell heartland prior to this time, it is still not evident in New York. Kipp Island phase burial practices are less elaborate than Squawkie Hill, and indicate continued Hopewellian influence, but in a much attenuated form. Grave offerings often consist of polished stone pendants, several pipe types, barbed bone points, and some of the more common Hopewell artifacts.

The reasons for the eventual decline of Hopewell influence in mortuary ceremonialism can be explained best by the nature of the cult itself. Hopewell burial ritualism was based on elaborate trade networks for obtaining exotic materials such as obsidian from the Rockies and the Southwest, and shells from the Gulf Coast.

According to Prufer (1964), the Late Middle Woodland period is characterized by a general increase in "unrest" and warfare, evidenced by the fortification of some of the Hopewell heartland centers. The disruption and later destruction of the Hopewell trade networks cut the flow of exotic raw materials and, later, finished goods. Western New York and other peripheral areas were particularly vulnerable. Following the collapse of the Hopewell, local traditions were re-established. In much of New York this was the terminal Point Peninsula tradition, the Hunter's Home phase.

Late Woodland (AD 650–1500). In western New York, the transition between the Middle and Late Woodland periods is marked by the Hunter's Home phase, an aspect of the terminal Point Peninsula tradition and sometimes designated Late Woodland (Mason 1981). According to Ritchie and Funk (1973), most Hunter's Home sites are moderately large with heavy refuse concentrations, storage pits, house patterns, and a wide range of artifacts. The phase, which has been dated as late as 1000, is often difficult to distinguish because of the presence of both Kipp Island phase and later Owasco traits. The notched projectile points common in Kipp Island are less popular in Hunter's Home, and are generally replaced by the triangular Levanna points which became commonplace during Owasco times and foreshadow the triangular Iroquois points (Mason 1981).

Another important feature which marks the Hunter's Home phase is a decrease in elaborate mortuary ceremonialism. Both single and multiple in-the-flesh interments and bundle burials occur, but the presence of grave offerings is sporadic. The predominance of secondary burials seems to indicate that corpses were left above ground, possibly in charnel houses, for a considerable time before interment (Ritchie 1980).

Hunter's Home phase economy can generally be characterized as a hunting, fishing, and collecting system. Increases in both social complexity and population are evident, leading to the hypothesis that "maize horticulture was already being practiced as an important aspect of the Hunter's Home economy" (Ritchie and Funk 1973:356). This hypothesis is partly founded on Ritchie's contention that some horticulture was practiced in the earlier Kipp Island phase (1980:240). However, most of the evidence for maize horticulture up to this time period is indirect; cultivated plant remains are rarely found archaeologically in New York State because of generally poor conditions for preservation of organic materials.

Once maize horticulture was significantly incorporated into the economy later in the period, it did not seem to drastically alter existing cultural patterns. For most of the Late Woodland period horticulture served simply as an additional procurement system. It was not until European-American disruption of native culture that groups became more fully dependent on horticulture for subsistence.

In New York State, the two primary Late Woodland traditions are Owasco, beginning with the Carpenter's Brook phase (AD 1000), and the prehistoric Iroquois,

beginning with the Oak Hill phase (AD 1300). In western New York, however, the Owasco traditional does not occur in a pristine state. Instead, the prehistoric cultures of western New York developed under heavy influence from the southern Ontario Princess Point Complex.

Princess Point subsistence generally consisted of hunting, fishing, gathering and, after about 500, maize horticulture. This represents the first occurrence of maize horticulture in northeastern North America. The corn was of the Northern Flint variety (*Zea mays*) with eight rows of kernels, probably related to a variety cultivated by the Hopewell cultures of Ohio and Illinois (Noble 1975).

Sites are generally located on relatively flat, exposed areas near, and not much above, water. Low riverine areas were occupied during the late spring and summer, whereas winter and spring occupations were in hilly areas away from the flood plain and free of seasonal inundation (Strothers 1977). Corn horticulture was not solely equated with village life. Evidence has been found which also associates horticulture with Princess Point riverine camps (Noble 1975).

The Princess Point complex shared many cultural traits with the Owasco to the east. Pottery was manufactured using the paddle and anvil technique as opposed to the coil or fillet method used prior to this time. Most tools were made from Onondaga chert; points were trianguloid, similar to Levanna points. Some antler points and bone awls have also been recovered. Because of its similarity to the Owasco, these cultures have been referred to as Ontario "Owasco" (Stothers 1977). The Martin Site (UB 214), an important Hunter's Home/Princess Point site, is located along the Niagara River shore at the southern end of Grand Island.

The incipience of the Glen-Meyer branch (Ontario Iroquois tradition) by about 1300 is accompanied by a major shift in the settlement system, the development of settled village life. By 630 years ago (Middleport horizon) villages were located near small tributaries, covering 5 to 6 acres (2 to 2.4 hectares) and consisting of a number of longhouses surrounded by a palisade (Wright 1964). At this time, the eight-row variety of Northern Flint corn is replaced by the ten-row variety, which proliferated after the introduction of beans and squash. The development of bean and squash horticulture is roughly correlated to a growth in population and village size. By the latter part of the fifteenth century, some longhouses were up to 300 ft (91 m) in length with central hearths spaced 20 to 30 ft (6 to 9 m) apart. In the latter part of the sixteenth century, house length is observed to have decreased to a range of 20 to 90 ft (6 to 20 m) with central hearths 5 to 8 ft (1.5 to 2.4 m) apart, although the number of houses in the villages increased (Noble 1975). Burials are located in and around the villages, and contain little or no grave offerings (Wright 1964).

In Western New York, White (1963) hypothesizes that the introduction of horticulture led to changes in the settlement system. According to White (1963:4), "When the production of the food resources was controlled by the group through

planting, then the limits on the amount of food set by natural seasonal replenishment were overcome." Near the beginning of the period (ca. 1100), groups lived in semi-sedentary villages, occupation was seasonal, and the villages were periodically moved. Around 1570, these same groups were living, year-round, in semi-permanent sedentary villages. Like the later Huron (Sykes 1980), these groups moved their villages every 15 to 20 years in response to changing environmental conditions. While the impetus for village movement most often cited is soil exhaustion (Sykes 1980; White 1960, 1961, 1963), other factors such as game depletion, fire wood depletion, refuse accumulation, and chronic warfare may also have been contributing factors. Game depletion, in particular, may have been a strong motivation for movement, since deer provided a resource for both food and clothing (Gramly 1977).

Just prior to substantial European contact in the early seventeenth century, groups on both sides of the Niagara River and Lake Ontario coalesced into the Neutral Confederacy. The Confederacy managed to stay intact until its decimation by the Seneca in 1650.

In conclusion, important changes occurring in this period were social rather than techno-economic. The technology of the period is characterized by refinement of the developments of earlier periods with styles and techniques becoming more regionalized. Horticulture, primarily the growing of corn, beans, and squash, was the primary source of plant food for the prehistoric Iroquois, but never totally supplanted the hunting, fishing, and collecting strategy as the most important means of subsistence procurement. However, the practice of horticulture had other ramifications. Primary among these was that it allowed, even demanded, increased sedentarism. Even before this period, the regional demographic situation was in a process of reorganization. With the added premium placed on land in the Late Woodland, territorialism was accelerated.

In the sociopolitical sphere, many later traits were under development in the early part of the period (1000-1300). These included residence rules, formal village arrangement, and, by 1400, clans which were the extensions of formal lineages developed during Owasco times (Noble 1975). As warfare increased, an institutional method of control became more desirable. One of the responses was the development of matrilocal social segments. The eventual size and apparent rigidity of structure and integration of these segments can be attributed to two factors: size seems primarily related to the growth of agriculture, while integration was due to the need for making decisions regarding group policy in questions of inter-group relations (Whallon 1968). This trend toward increasing social integration continued during the period and eventually led to the establishment of formal, matrilocal tribes. Changes in the social environment caused by European-American intervention resulted in further adaptive responses, culminating in the formation of the Iroquois Confederacy in either Late Woodland or early Protohistoric times.

Protohistoric/Iroquois Occupation (AD 1500–1650). Native American groups in western and central New York were profoundly affected by the introduction of the fur

trade, long before the arrival of a permanent European-American population in the area. The Protohistoric period conventionally begins in 1534 when the French explorer Jacques Cartier sailed up the St. Lawrence River and met groups of Iroquoian-speaking Native Americans at what is now Québec City and Montréal. However, there is some evidence that Basque, Portuguese and Breton fishermen were traveling to the Gulf of St. Lawrence-Newfoundland area and making sporadic contacts with native groups somewhat earlier (Hoffman 1961; Brasser 1978; Trigger 1978). This period dates the beginning of the end of traditional Native American cultural patterns due to ever-increasing political, military, religious and economic interactions with Europeans.

Archaeological evidence suggests that major changes in the spatial distribution of the native population were taking place as early as 1500-1510. Demographic shifts took the form of community amalgamation. Excavations of the early sixteenth century Draper and Parsons Sites (southern Ontario) revealed unusually large villages that appeared to have grown over their duration through the addition of large population segments. Ceramic remains from these sites indicate that the population influx was from the east.

Ramsden (1978) argues that these changes were correlated with the first appearance of European trade goods in small quantities among these Iroquoian groups and that this supports the hypothesis that a St. Lawrence-Ottawa River-Great Lakes trade and transportation route was in existence prior to the sixteenth century. Furthermore, pre-existing intertribal trading relationships were the mechanism by which European trade goods were channeled into the lower Great Lakes from the Gulf of St. Lawrence area.

In addition to the tensions introduced through simple contact with Europeans, trade has been recognized as having a major impact upon traditional aboriginal cultural patterns. The most immediate changes were due to the introduction of a far superior material culture. Once the fur trade was established, assuring a stable supply of these goods, the manufacture of native goods rapidly declined until they were entirely replaced by European manufactured implements.

Finally, changes occurred in sociopolitical relationships after 1640 as the fur trade intensified and the supply of furs declined. The most important of these changes was the formation of confederations such as the Five Nations Confederacy of New York State, the Neutral Confederacy and the Huron Confederacy.

An important catalyst for these sociopolitical changes was the European policy of supplying guns and ammunition to native groups as part of a strategy to enlist the various tribes and confederacies as proxies in the European struggle for control over the continent. The introduction of firearms in some quantity led to a major adjustment in traditional warfare and upset the traditional balance of power in the region. That the Iroquois of central and eastern New York State were the first to exploit this upset in the balance of power, and eventually proved to be victorious, is thought to be the result of

their geographical location (Trigger 1976). Prior to the arrival of Europeans into the Niagara Frontier, three Iroquoian peoples primarily occupied the region: the Neutral, the Wenro and the Erie. A fourth Iroquoian group, the Seneca, inhabited the areas well east of the Buffalo, but would assert their power in the region's affairs beginning in the seventeenth century (White 1978a, 1978b; Abler and Tooker 1978). Located in the Niagara peninsula of Ontario and in the western portion of what is now Niagara County, the Neutral earned their name from their location between the Hurons to the north and the Iroquois to the east, and their efforts to remain neutral during the incessant warfare between those two groups. A possible Neutral cemetery (the Van Son site) was located on the northern end of Grand Island and was destroyed during the construction of the Niagara extension of the New York State Thruway (Route 190). The Wenro occupied areas in Niagara and Orleans counties, east of the Neutral near Batavia. The Erie, or Nation of the Cat, were located south of the present City of Buffalo along Lake Erie (or *Lac du Chat*, to the French) and utilized areas southeast of the lake that bears their name. The traditional homeland of the Seneca Iroquois was the area between the Genesee River and Seneca Lake (Engelbrecht et al. 1993:32-33; White 1978a:407-409, 1978b:412-413; Turner 1974 [1850]:69). Unlike their major competitors, the Iroquois were surrounded on all sides by sedentary agricultural groups and, therefore, had no direct access to the fur resources of the interior of the continent. The Huron Confederacy geographically straddled the major transportation networks and were able to exploit their hunter-gatherer neighbors' need for agricultural commodities by trading corn and other products for furs, thereby securing the advantage of access to the vast supplies of the interior. The Iroquois wars of the mid-seventeenth century were aimed at eliminating the Huron and other agricultural groups as middle men to obtain direct access to fur supplies (Trigger 1976; White 1971; Hunt 1940).

Beginning in 1638 with the Wenro tribe of western New York, and in rapid succession, the dispersals (i.e., extermination and assimilation) began. After the Seneca had secured the resources of the Niagara Frontier, large-scale concerted attacks by the League were directed against the Huron Confederacy (dispersed by 1649), the Petun (dispersed by 1650), the Neutral Confederacy (dispersed by 1651) and, finally, the Erie Confederacy (dispersed by 1655). Thus, by the mid-seventeenth century, the League Iroquois of New York emerged as a politically, militarily, and economically united confederacy with sole access to both the land and resources surrounding the lower Great Lakes.

2.3.2 Historic Period. The French were the first Europeans to penetrate the valley of the Niagara River and explore the shore of Lake Erie. As early as the 1620s, Jesuit missionaries and French traders were establishing contacts with the local native groups. For example, Joseph de la Roche Daillon, a Recollect missionary, lived among the Neutrals for three months in 1626, and Jesuit fathers Jean de Brébeuf and Pierre Joseph Marie Chaumonot visited the Neutrals in 1640. However, these visits to the region were infrequent until the 1660s (Horton et al. 1947; White 1978a:409).

For almost all of the seventeenth and eighteenth centuries European activities in the area that would become known as the Niagara Frontier involved limited religious, commercial, and military endeavors. In 1678-1679, as part of general reconnoitering and trade expeditions by the French in the Niagara valley, men under the direction of René-Robert Cavelier de La Salle constructed a ship called *Le Griffon* along the Niagara River which would be the first sail vessel to ply the waters of Lake Erie and prosecute the Great Lakes fur trade (Trigger 1978:349-352; Abler and Tooker 1978:505-506; Turner 1974 [1850]:116-119).

As the fur trade became an imperial concern for the European powers during the seventeenth and eighteenth centuries, the subsequent competition among these powers resulted in the erection of fortified trading posts along the frontier, such as the French Fort Conti in 1679 (later, Fort Niagara), and the British fort near the future village of Geneva twenty years later (Abler and Tooker 1978:505-507; White 1978b:414-416; Turner 1974[1850]:116-119; Trigger 1978:354-356). Competition between the Seneca and the French and their Native American allies for control over the western fur trade erupted in violence when Jacques René de Brisay, Marquis de Denonville, governor of New France (Canada), led an attack against the Seneca in July 1687. After the attack, the Seneca, badly outnumbered, fled the field, and the French destroyed the ripening corn crop, before retreating to reconstruct the fort at Niagara (Fort Denonville). After a severe winter, the French abandoned the fort and the region reverted to Seneca control (Abler and Tooker 1978:506-507; Tooker 1978: 431-432; Turner 1974 [1850]:143-147, 184).

Despite consistent failures in establishing a permanent trading post along the Niagara River, French strategists continued to accept the idea that asserting control over the Niagara River valley offered strategic advantages within their imperial goals. A trader, interpreter, and former soldier, Louis-Thomas de Joncaire, Sieur de Chabert parlayed his years as a captive and adoptee of the Seneca into permission to erect a series of trading posts along the Niagara River and Lake Ontario, to the north, including one at the Lower Landing in what is now the village of Lewiston, ca. 1720. Finally, in 1726, with the construction of a permanent fortification along the Niagara River—Fort Niagara —the French began to exercise military control of the Niagara valley. As a result, by the middle of the eighteenth century, the French had created a string of military and trading installations. These forts extended from Fort Niagara along Lake Ontario, south to Buffalo Creek, and along the southern shore of Lake Erie to Presque Isle (present-day Erie, Pennsylvania) into the Ohio valley (Abler and Tooker 1978:506-507; Tooker 1978:431-432; Turner 1974 [1850]:143-147, 184; Old Fort Niagara Association 2000).

As the rivalry between the British and the French grew more intense during the course of the eighteenth century, the strategic importance of western New York as a nexus of trade and commerce increased as the area became enmeshed in the struggle between the two European kingdoms for control over North America. Tensions between the two kingdoms reached a crescendo during the 1750s, as the two countries went to

war. After a 19-day siege, British troops captured Fort Niagara in July 1759, crippling the French presence in the region, although skirmishing between Native Americans and the English continued the closing days of the French and Indian War (Turner 1974 [1850]:228-233). After the French defeat and their loss of North American colonies, the western Seneca, remaining loyal to the French, joined Pontiac's uprising, harrying English-American settlers along the frontier. With the cessation of those hostilities, the Seneca were compelled to cede a one-mile swath of land along the Niagara River to the English (Abler and Tooker 1978:507; Tooker 1978:434)

During the American War for Independence warfare on the frontier remained well east of the region and consisted of raids in the Mohawk and Wyoming valleys. As part of Britain's strategy to cripple the frontier economy by disrupting agricultural activities, the English enlisted their Iroquois allies to participate in these successful raids on frontier farming communities. In 1779, Major General John Sullivan led punitive assault into the heart of Iroquois country in an effort to halt Iroquois incursions against American settlers. After defeating a combined force of British Rangers and Native Americans at Newtown (the future city of Elmira), the large invading army moved north, up the east side of Seneca Lake, adopting "scorched earth" tactics by destroying everything in their path. The swath of destruction stretched from Newtown all the way to Canandaigua and Honeoye up to the Genesee River (Abler and Tooker 1978:507-508; Ellis et al. 1967:116-117; Cinquino et al. 1997:3/21-23; Smith 1884:I:50-51).

Badly beaten, the Iroquois retreated to the Niagara region where they suffered through a miserable winter of hardship and hunger. Some Seneca subsequently settled along Buffalo Creek, which would later be incorporated into the Buffalo Creek reservation (Smith 1884:I:51-52; Lankes 1964). Provisioned and armed by the British, the Iroquois harassed colonial settlements until the end of the war, although the Seneca were no longer a major military threat. Abandoned by their British allies after the Treaty of Paris (1783) ended the Revolutionary War, the Iroquois were forced to deal with the Americans, who aspired to usurp Iroquois lands. As a result, in the Second Fort Stanwix Treaty (1784) the Iroquois lost all their land west of the Genesee River, except for small reservations. This treaty was disputed by several groups of Iroquois until 1794, when a treaty was signed at Canandaigua between the United States and the Six Nations. This so-called Pickering treaty (named for then-Secretary of State Timothy Pickering) defined the boundaries of Seneca lands and the reservations of the other Iroquois groups (Abler and Tooker 1978:508: Goldman:1983:27-31).

Native American title to the land in western New York was largely extinguished with the Treaty of Big Tree (present-day Geneseo, New York) in 1797, although several areas were reserved for the Native Americans to use and live on, including reservations at Buffalo Creek, Allegany, Cattaraugus, and Tonawanda (Turner 1974 [1850]:403; Abler and Tooker 1978:509, 512; Smith 1884:I:74-75, 489, 524; Lankes 1962). Lying on both sides of Buffalo Creek, the Buffalo reservation consisted of 130 square miles and extended east from Lake Erie. William Street in the Town of Cheektowaga was the

reservation's approximate northern boundary (Turner 1974 [1850]:403; Lankes 1964; Smith 1884:I:74; Abler and Tooker 1978:509, 512; Goldman 1983:27-29). Recently, some Iroquois groups have challenged several late-eighteenth century and early-nineteenth century treaties in U.S. federal court, attempting to have some of their former lands in western and central New York State returned, but former Buffalo Creek reservation lands have not been party to those cases.

European-American settlement of the Niagara Frontier dates from the end of the American Revolution in 1783, although border disputes between New York and Massachusetts, both of which claimed the new territory, frustrated the actual, legal sale of these lands. Under an agreement signed in Hartford, Connecticut, in 1786, the land once occupied by the Iroquois came under the jurisdiction of New York State. Nonetheless, the Commonwealth of Massachusetts maintained the right to sell the land west of Seneca Lake. During the next decade large grants of land in western New York would be sold to private investors who would attempt to open the land to settlement, except for a one-mile wide strip of land along the eastern bank of the Niagara River beginning just north of the Buffalo River, which New York State reserved for itself (Ellis et al. 1967:152-156; Schein 1993:5-8; Abler and Tooker 1978:507-509; Turner 1974 [1850]:326). After having problems with the land's initial purchasers, a syndicate of land speculators headed by Oliver Phelps and Nathaniel Gorham, the Commonwealth of Massachusetts sold the rights to the unsurveyed portion of the area to Robert Morris in 1791. Reserving a portion of the land for his own purposes, Morris sold the remainder, including the present Erie County, to a consortium of Dutch investors called the Holland Land Company in 1792-1793 (Turner 1974 [1850]:396-403; Ellis et al. 1967:154-156; Smith 1884:I:75).

Augustus Porter, pioneer of Western New York and Robert Morris's surveyor, reported that in the spring of 1795 "all that part of the state of New York, lying west of 'Phelps and Gorhams's Indian Purchase,' was still occupied by the Indians, their title to it not being yet extinguished. There was of course no road leadingfrom [sic] Buffalo eastward, except an Indian Trail, and no settlement whatever on that trail" (Turner 1850:372). However, Porter stated that four people lived in Buffalo at that time: Captain William Johnston, a British Indian interpreter; Martin Middaugh, a Dutch cooper, and his son-in-law, Ezekiel Lane; and Cornelius Winne, an Indian trader (Turner 1974 [1850]:372; Graham 1967:15; Smith 1884:I:73).

Joseph Ellicott and New Amsterdam. As a precursor to the settlement of the area, Theophilus Cazenove, Philadelphia-based agent of the Holland Land Company, contracted Joseph Ellicott in July 1797 to survey the company's land in western New York and divide it into townships. The process began in the spring of the following year. The future City of Buffalo was sited and laid out by Ellicott, who called the village on Buffalo Creek New Amsterdam and named the streets after his Dutch patrons and local Indian tribes (Figure 5). However, the increasing number of local residents resisted the Dutch appellations and referred to the village as "Buffaloe" (Smith 1884:II:26-27, 30-31; White 1898:I:140). In 1798, Augustus Porter surveyed the

Buffalo Creek reservation boundary, and James Smedley surveyed a portion of Buffalo Creek (Lankes 1962:20). Dealing with the Seneca and Captain Johnston, who had received a tract of two square miles north of the river from the Iroquois in the early 1780s, Ellicott renegotiated the northern boundary of the Buffalo Creek reservation to ensure that New Amsterdam would be located on at the foot of Lake Erie along the Buffalo River. "So, instead of the north boundary of the Buffalo Creek reservation running due west [following William Street in what is now Cheektowaga in a straight line to the lakeshore] to the State reservation, it was made to turn just east of what is now East Buffalo, whence it ran southwest to the creek and down the center of the creek to the lake" (Smith 1884:I:79; see Figure 5). Buffalo Creek just north of what is now Childs Street was the Indian reservation's approximate northwestern boundary.

As noted, the first roads in the territory were Indian trails that connected the various reservations as well as led to favored hunting areas (Turner 1974 [1850]:62-63; White 1898:I:140; Silsby 1961). In late 1797, the New York State Legislature authorized the creation of a state road from Conewagus (Avon) to the tiny settlement at Buffalo Creek as well as another one to the village of Lewiston; both roads partially funded by the Holland Land Company. During the spring of 1798, crews under the direction of Ellicott began widening and improving the Buffalo Creek road to facilitate the arrival of supply wagons. Shortly thereafter, Ellicott commissioned White Chief, a Seneca, to mark a path through drier portions along the trail. This fresh cut, following the old trail in general, approximates the current swath of Main Street (Turner 1974 [1850]:403; Vandrei and Nagel 1980:3-5; Keller et al. 1981:3-3).

> The trail ran from the east, even from the valley of the Hudson, crossing the Genesee at Avon, running through Batavia, and down the north side of Tonawanda creek, crossing into Erie county at the Tonawanda Indian village. Thence it ran over the site of Akron, through Clarence Hollow and Williamsville, to Cold Spring [near the intersection of Main and Ferry Streets], and thence following nearly the line of Main street to the creek (Johnson 1876:100-101; see also Turner 1850:62-63).

Completed in 1803, this road was known as the Buffalo-Batavia Road to the early settlers and "was an ungraded, stump-covered, 10-foot-wide wagon route" that connected Batavia to Ellicott's New Amsterdam (Keller et al. 1981:3-3). Further, within New Amsterdam, Ellicott labeled the lower portion of future Main Street Willink Avenue, and the upper portion of the street Van Staphorst Avenue, after two of the Dutch proprietors (Smith 1884:II:101).

In 1802 all land west of the Genesee River was incorporated into Genesee County, and all land west of the Ellicott's east transit, including the project area, was subsumed under the Town of Batavia. Two years later, the Town of Batavia was divided into the towns of Batavia, Willink, Erie, and Chautauqua. Separated by Ellicott's west transit (present-day Transit Road), the towns of Erie and Willink stretched from Lake Ontario to the Pennsylvania border. The project area was within the Town

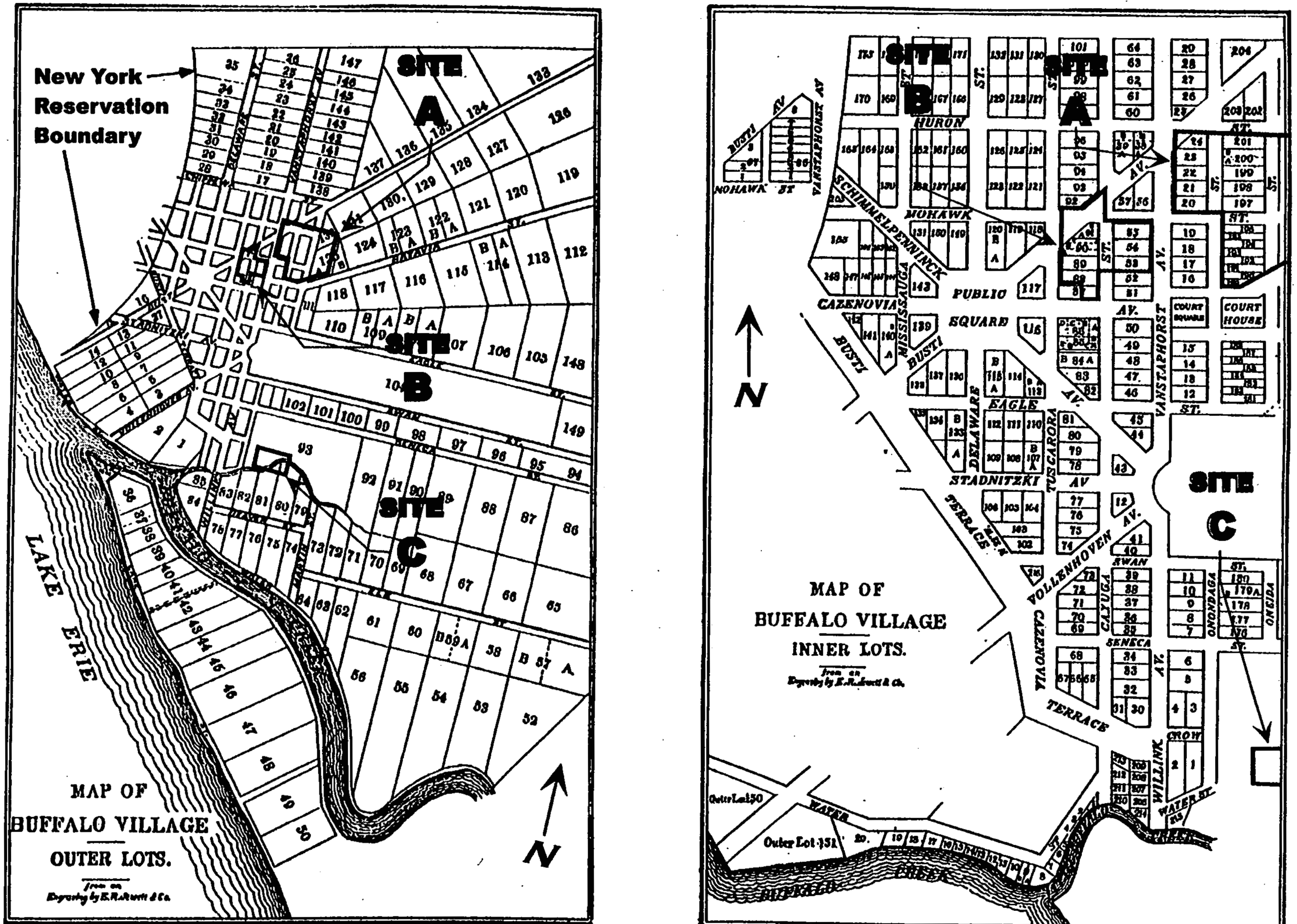


Figure 5. The Village of Buffalo as laid out by Joseph Ellicott, 1804 *(Smith 1884:II:30,31).*

of Erie, which contained all land in Ranges VII, VIII, and IX, while the Town of Willink comprised all land in Ranges IV, V, VI (Beers 1880:7-8).

Once townships had been surveyed and roads in the area cut, lots were sold to prospective pioneers. These early settlers were predominantly New Englanders (especially Vermonters) and Pennsylvanians, who entered the territory during the early 1800s. In 1803, lots in what would become the Towns of Amherst and Lancaster were purchased for $2 per acre (Johnson 1876:118). Although the names of specific early settlers for the immediate project area could not be ascertained, ca. 1804. "Outside the village [of New Amsterdam] limits, but within the present city [of Buffalo], Rowland Cotton bought a hundred and forty-three acres at what is now Main and Amherst streets, for $3.50 an acre" (Johnson 1876:126).

Settlement and growth followed quickly. In 1808 Niagara County was formed (consisting of what are now Erie and Niagara Counties) with New Amsterdam as the county seat. The new Niagara County contained three townships: Cambria, Clarence, and Willink; the last two were extended to the middle of the Buffalo Creek reservation, although they had only nominal jurisdiction over those lands. Two years later the Town of Buffalo was created. By 1813 New Amsterdam was incorporated as a village (Beers 1880:20; White 1898:I:14-15; Smith 1884:I:511-513).

War of 1812. The regions's growth was stunted by the War of 1812 as Western New York served as one of the primary theaters of that conflict and areas near the border with Upper Canada (the current province of Ontario) were ravaged by attacks and counter-attacks. In December 1813, British forces captured and occupied Fort Niagara and burned Lewiston, the Tuscarora village near the Niagara River, Manchester (also known as Schlosser; present-day Niagara Falls), Black Rock, and Buffalo, which had a population of approximately 500 at that time. The devastation was substantial, leaving the territory largely depopulated (Smith 1884:I:63-74, 126, 399, II:63-74, 573; Ellis et al. 1967:141; Goldman 1983:21-24; Turner 1974 [1850]:603). After the British raids ended on January 1, 1814, only three structures remained in the village: David Reese's blacksmith shop on Seneca Street, Mrs. Gamaliel St. John's house on Washington Street, and a small, stone jail on Washington Street near Eagle Street (Bowler 1976).

Along Lake Erie, the *Queen Charlotte*, a British vessel, prowled the lakeshore, sending marauders ashore to acquire food (Turner 1974 [1850]:603). As expected, settlers began to trickle back soon after the cessation of active warfare in 1814. While efforts to rebuild the village began to take root, Thomas Jimeson kept a tavern on Aurora Road west of Buffalo Creek north of the reservation after 1815 (Smith 1884:I:502).

As pioneers flocked westward, Erie County was created from Niagara County in 1821. The Buffalo-Williamsville Road became a major line of trade and commerce for the residents of the county, first for the shipment of freight (until the Erie Canal), then

for transfer of people (until the railroads in the 1840s and 1850s). In 1826 the road was officially designated a public highway and called Main Street (Keller et al. 1981:3-5; Johnson 1876:308-309). By the 1850s "local traffic ensured the continuance of Main Street as a local artery" (Glover 1971:5).

Incorporation and Early Development of the City of Buffalo. The Town of Buffalo was established in February 1810, and contained all land west of the west transit (Transit Road) between Tonawanda Creek on the north and the middle of the reservation on the south, although the town only had nominal control over reservation lands. As noted, three years later the settlement at Buffalo Creek was incorporated as the village of Buffalo (eight months after that it was burned to the ground). As pioneers filled the Niagara Frontier after the end of the War of 1812, the Town of Amherst, which included the present-day Town of Cheektowaga, was removed from Buffalo in April 1818, three years before Erie County's formation in 1821. The region received a tremendous economic boost when one terminus of the Erie Canal was located at the Village of Buffalo, near the mouth of Buffalo Creek. In an effort to influence the canal commissioners to site the western terminus at Buffalo, the Judge Samuel Wilkeson organized the Buffalo Harbor Company in 1819 to improve harbor conditions. Begun in 1817, the Erie Canal linked Buffalo and Lake Erie with New York City when it opened October 26, 1825 (Shaw 1990:5-6, 181-187). The location of the canal terminus at Buffalo guaranteed its victory in its rivalry with the nearby village of Black Rock, and made Buffalo the transfer point for goods shipped between the Midwest through the lakes to New York and ocean trade.

The Main and Hamburg Canal or Hamburg canal, located under the Niagara section of the New York State Thruway (Route 190), is one of several canals that contributed to the city's success as a manufacturing center. Discussion of extending the Erie Canal to the Hydraulic Mills at Hamburg Street began as early as 1833 at an estimated construction cost of $8,101.40 (Bureau of Engineers A.1.194, Aug. 2, 1833). The Hamburg canal, which ran north of Scott Street and paralleled Buffalo Creek, was reportedly initiated by owners of the land through which it was to run. In 1841, the mayor conveyed the Main and Hamburg Canal to New York State. Almost 20 years in the making, the Main and Hamburg Canal officially opened in 1852 (Bureau of Engineering, C.3. 368, June 16, 1837; Smith 1884:II:96; Severance 1912:44). Three years later, the city declared the canal a nuisance because of stagnant water at its eastern extremity (Bureau of Engineering C.P. 275 Aug. 27, 1865 and C.P. 153 May 12, 1856). To lessen health risks created by the stagnant canal measures were taken to supply it with fresh water every two hours from Big Buffalo Creek via the Hydraulic Canal (Bureau of Engineering C.P. 313 May 24, 1869). Used as a sewer, the Main and Hamburg Canal was filled prior to 1903 (BECHS nd).

Another canal constructed to augment the Erie Canal, the Clark and Skinner Canal was constructed between 1841 and 1846 and connected Buffalo Creek and the Main and Hamburg Canal. Measuring 43 feet wide, it ran parallel to and east of Mississippi Street, and was located between two of the largest railroads that entered

Buffalo at the turn of the nineteenth century, the Delaware, Lackawanna, & Western and the Lehigh Valley. By the end of the nineteenth century, the canal produced "unsavory odors" and was considered a danger to public health (BECHS nd). According to a newspaper article of the day,

> From Perry Street north to Scott Street the stream is a bogmire. The wharfage on the west side upon which the plant of Schoellkopf & Company's tannery is located is dilapidated and in many places entirely washed away. Much refuse has been dumped into the slip, contaminating the water and making it a public nuisance. From Perry Street south to Elk Street, and even as far as the Buffalo River, the slip is in somewhat better condition [*The Express*, September 29, 1904 in BECHS nd].

Largely abandoned prior to 1903, the canal was acquired by the Delaware, Lackawanna & Western Railway Company and filled shortly thereafter. The canal is now beneath Baltimore Street (E&E 1993:5-2; BECHS nd; Gorton 2000).

The resulting economic prosperity swelled Buffalo's population. In 1825, Buffalo contained 2,412 people; by 1835, this number had jumped to 15,561. In April 1832 Buffalo was incorporated as a city, with Buffalo Creek its southern boundary (Sass 1983:12-13, 19). Outside the city's limits, the project area remained Seneca land as part of the Buffalo Creek reservation until 1842. Between 1835 and 1842, the Seneca sold this property to the Ogden Land Company and relocated to reservations to the south. Little settlement occurred south of Buffalo River by 1847. The Western (later Hamburgh) turnpike was a prominent roadway in this area and followed the current path of what is now Ohio Street to Route 5 south of the river, west of what is the City Ship Canal (Sass 1983:14; Smith 1884:II:97, 105; Goldman 1983:31-33).

The city's population growth mirrored increased commercial development and settlement in the areas along the canal. As a result, the Town of Tonawanda, including Grand Island, was removed from the Town of Buffalo in April 1836. Further, the Town of Black Rock was created in April 1839, and included all land in the Town of Buffalo outside the city, whose boundaries were North Street on the north, Jefferson Street on the east, and the Buffalo Creek reservation on the south (Smith 1884:I:116, 182, 212, 221).

The economic impact of the Erie Canal and the prosperity engendered by activities at Buffalo Harbor would be reinforced in the 1840s by Joseph Dart. Dart perfected a steam-powered grain elevator and system for removing grain from the holds of ships in 1840s, revolutionizing grain shipping and handling. His invention combined with Buffalo's strategic location as the nexus of the Great Lakes/inland trade and the ocean trade associated with the ports of New York, Boston and Philadelphia led to erection of numerous grain elevators along the Buffalo River. Beginning at the Evans Slip and Commercial Street in 1842, construction of numerous grain elevators would turn Buffalo into one of the leading grain shipping centers in North America (Sass 1983:26; Goldman 1983;58; Buffalo History Works 2000a). By 1863, 27 grain elevators enshadowed Buffalo's harbor and were part of an extensive transportation network and

developing industrial economy (Buffalo History Works 2000b). From the mid-nineteenth century to the mid-twentieth century,

> Lake steamers loaded with grain, lumber, livestock, iron, and limestone docked and waited while their cargo was loaded on to canal boats and freight trains bound for seaports of the east. Access to rail and water transportation also facilitated the development of the city's first factories. Flour mills, breweries, grain elevators, tanneries, and iron foundries all crowded the banks of the Buffalo Creek in South Buffalo [Kowsky et al. 1981:248].

Economic growth heralded expansion and social change. In 1845 the city's population was 29,773; by 1855 it was 74,214 with more than 60 percent of those people foreign born. These residents in 1855 included 31,000 Germans and 18,000 Irish (most of whom were Catholics) (Sass 1983:24; Goldman 1983:72). In 1853, City of Buffalo extended its boundaries, annexing the Town of Black Rock and receiving a new city charter (Sass 1983: 42; Smith 1884:I:230).

As an economic artery, Main Street was macadamized during the last years of the 1830s. During the depression years after the Panic of 1837, the Buffalo and Williamsville Macadam Road Company was chartered "to build a macadam road from Buffalo to Williamsville, and actually did build it within a year or two afterwards [at least by 1840]. This was nearly, or quite, the first successful attempt to replace one of our time-honored mud roads by a track passable at all seasons" (Johnson 1876:412; Smith 1884:I:213; Keller et al. 1981:3-9). As a result, the Buffalo and Williamsville Road acquired toll gates: one near the future Humboldt Parkway and one at the Getzville Road. "To travel the nine miles cost a carriage driver 8¢ for two horses and 5¢ for one. The road cost $60,000, and its maintenance by a private corporation was ended in 1899" (Glover 1971:5-6).

Located near the existing convention Center (Site B), the first Young Men's Christian Association (YMCA) in Buffalo was founded in April 26, 1852. This facility was only the third in North America and the second in the United States. (Montréal and Boston were the first and second sites, respectively.) (Larned 1911:II:87).

Environmental investigations for the Webster Block, which is contiguous on the northwest of Site C described development of the area commencing around 1835 (Panamerican Environmental, Inc. 2000; Severance 1912:44). Early structures were commercial in orientation and consisted of "17 stores, wholesale and jobbing houses dealing in dry goods, groceries, other commodities, and hotels" (Panamerican Environmental, Inc. 2000:ii). In the vicinity of Site C, the Buffalo Steam Engine Works (later, the George W. Tifft, Sons and Company) was one of the earliest industrial ventures in that area. Established in 1841, the company made steam engines, machinery, and boilers for architectural uses (E&E 1993:5-3). Later economic activities included a copper and sheet metal company, engine works, a pipe-fitting company, a brass foundry, oil storage and refining, and asbestos, insulation and other warehouses,

as well as the Lehigh Valley Railroad complex after 1900 (Sanborn Map Company 1889, 1899, 1925, 1951).

Railroads. The arrival of the railroads during the mid-nineteenth century facilitated the economic transformation of Buffalo from farmstead and commercial enterprises into more heavily populated industrial areas, especially near the downtown areas of the City of Buffalo where the New York Central and later the Lehigh Valley Railroad, erected its railroad yards. In the planning stages since 1832, the Buffalo & Erie (Pennsylvania) Railroad was completed in stages. The Buffalo & State Line Railroad (part of the Lake Shore and Michigan Southern in the 1880s) opened in February 1852, with the completion of the Buffalo to Dunkirk route. Running parallel to Lake Erie, the line between the New York-Pennsylvania state line and Dunkirk had opened the first of that year (Smith 1884:I:314-315; Stone and Stewart 1866; Beers 1880:22). By 1880, the Buffalo & Erie Railroad, which ran east of the Site C project area to Buffalo's Exchange Street Station in 1866, was paralled by the Buffalo & Southwestern Railroad in 1880 (Beers 1880). By the end of the nineteenth century, Buffalo was the second leading railroad terminus in the Untied States (after Chicago), reducing the economic impact of the Erie Canal to near irrelevance (Goldman 1983:129-120; Smith 1884:I:320; Fischer 1999a, 1999b, 2000).

The Lehigh Valley Company operated a railroad and several trestles along Lake Erie by the late 1870s, and established a line of steamers for use in the Great Lakes coal trade by 1884. One trestle was located near the Ohio basin and fronted the creek. Stocking room was contained on the G.W. (later J.V.) Tifft farm. The Lehigh Valley Company excavated extensive canals and slips within the former Tifft farm in the mid-1880s at what is now the nature preserve, and reserved a large area for storage (Smith 1884:II:204; Buffalo History Works 2000c: Part I).

Contributing to this growth was the creation of several horse-drawn, steam, and later electric railways that ran through West Seneca to the City of Buffalo. After 1892 these railways included the Buffalo and East Aurora Electric Railroad, and the Buffalo, Gardenville & Ebenezer Railway, which helped the residential and suburban expansion of South Buffalo and West Seneca during the early twentieth century.

Early Manufacturing and Industry. Buffalo's key asset was its geographic location at the eastern terminus of Lake Erie. With the completion the Erie Canal in 1825, the city emerged as a processing and shipping center. Canal trade accelerated the transportation of goods to and from the eastern part of New York State, prompting the City of Buffalo to become one of the greatest commercial centers of the second quarter of the nineteenth century.

Until the late 1840s, Buffalo was considered a bustling maritime town, but the advent of the railroad in the mid-nineteenth century allowed the city to enter new avenues of industry. After the panic of 1857, city merchants reevaluated their economic situation and decided to diversify, seeking new non-maritime based

industries. An Association for the Encouragement of Manufactures in the City of Buffalo was organized that year. The group initiated a major promotional campaign that included the nationwide distribution of pamphlets that advertised the amenities associated with the city, including inexpensive real estate, modern streets, unsurpassed schools and the purest of waters (Smith 1884:II:238; Goldman 1983).

Iron ore smelting began in Buffalo around 1860 (Holder 1960:14). The railroad was vital for the importation of iron and coal to Buffalo from the mines of Pennsylvania. Economical lake transportation of ore to Buffalo enabled the shift of the city's commerce-based economy to a manufacturing economy (Holder 1960:16). The Civil War stimulated the iron and steel industry and by 1864, there were 24 foundries and machine shops in Buffalo.

Buffalo's industrial marketplace intensified after the Civil War, and in 1869 an industrial exposition was held in the city that featured the inventiveness of mechanization and production and fostered the idea of industry as craft (Goldman 1983:126). The introduction of the iron industry at the exposition provided a stage for the initiation, and subsequent development, of a new era of industrialization. Soon after, iron and steel manufacturing would become the backbone industry of the City of Buffalo.

In addition to grain elevators and other shipping and mercantile endeavors, ancillary businesses also were located along the waterfront. Enterprises located in this intensively developed area included office buildings, saloons, groceries, storage depots, and railroad related structures, as well as a distillery and a bras works (E&E 1993:5/3-4).

Transportation. Main Street continued to be an artery of commerce for the area during the end of the nineteenth century and beginning of the twentieth century. Opening on June 11, 1860, the Buffalo Street Railway Company operated a streetcar line on Main Street from "the Dock" to Edward Street, which was extended to Cold Spring (Main and Ferry streets, north of the city's central business district) by July 14, 1860. The line was extended to Delaware Park in July 1879 (Smith 1884:II:529-530; Larned 1911:I:145,147-8). Initially a horse-drawn service, electric power was later introduced in 1889 on the line to Delaware Park (Larned 1911:I:148). By 1893, an electric trolley system connected Williamsville to Buffalo, which operated until 1930, when gasoline buses and cars replaced the electric trolley (Glover 1971:6). These transportation improvements offered suburban living opportunities for urban workers.

On August 15, 1896, the first electric current was transmitted to Buffalo from Niagara Falls. The event led to the gradual electrification of Buffalo industry. The International Railway Company, a local street railway, was the first electric railway in the city in November 1896. In 1897, George Urban's Flour Mills were the first industries to be electrified. Moreover, the availability of this power supply served to draw the Lackawanna Steel Company from its home in Scranton, Pennsylvania, to the Stony

Point section of the Town of West Seneca by 1904 (Goldman 1983:135-136; Weller 1972a:2-3; see also Lankes 1968:55). By the latter part of the nineteenth century, the Delaware, Lackawanna & Western (DL&W) Railroad and the Lehigh Valley Railroad constructed stations, tracks and support structure in the vicinity of the Waterfront Site (Site C).

Later Commercial and Industrial Developments. The invention of the grain elevator, the advent of electric power, and the relocation of the Lackawanna Steel to the Lake Erie shore, south of the Buffalo city limits in what is now the City of Lackawanna, propelled Buffalo to increased industrial growth and manufacturing expansion after World War I. In 1923, 270 million bushels of grain passed through the area. In the mid-1920s, 34 grain elevators of a variety of sizes with situated along the Buffalo River and around the harbor, including those operated by Washburn-Crosby (later General Mills), Pillsbury, George Urban Milling Co., and Hecker-Jones-Jewell Milling Co., among others. In addition to milling operations, cereal companies were also located in the city, including Hecker H-O Company, the Mapl-Flake Company, and the Shredded Wheat Company (Buffalo History Works 2000a). By beginning of World War I, the Main and Hamburg Canal and the Clark and Skinner Canal were filled or converted to storm sewers (E&E 1993:5-5).

From the 1920s, Buffalo's vibrant industrial economy drew other manufacturing concerns, such a the Curtis-Wright Aeroplane Company (which employed more than 2,000 people in the 1920s), the burgeoning automotive industry employed more than 15,000 workers, various machine shops and foundries employed 13,000, meat packing industries employed 3,000 workers as did the soap making industries in the 1920s. The city had a population of 506,775 in 1920 (Goldman 1983:216-217; Graham 1967:97, 102). In the post-World War II years, the grain/flour-products industry remained ensconced along the western oxbows of the Buffalo River, while the steel industry was located further to the east (notably the Republic Steel conglomeration) and to the south in Lackawanna (Graham 1967:83-85, 88-90). Despite a seemingly vibrant economy in the 1940s, a long economic decline was underway by the end of World War II. This decline witnessed the gradual relocation of important companies to neighboring states or outright closure (such as Bethlehem Steel in the 1980s), and the decline of the city's population from 580,132 in 1950 to 532,132 in 1960 and an increasing suburbanization of Erie County (the county's population exceeded one million in 1960) (Graham 1967:119; Goldman 1983:268-273).

The Skyway (Hamburg Turnpike) was completed ca. 1957 as part of general boom in large-scale, public construction projects in the 1950s and 1960s, which included the extension of the New York State Thruway into the Southtowns and the construction of the Niagara Extension of the Thruway (I-190). In addition, the St. Lawrence Seaway was completed in 1958-1959 allowing ocean-going vessels to by-pass Buffalo (via the Welland Canal between Lake Erie and Lake Ontario), providing another avenue for economic decline. By the 1960s, many railroad structures formerly located in the vicinity of the Waterfront Site (Site C) had been razed, leaving large open lots. Recent

development in the City of Buffalo (since 1975) includes the construction of the existing Erie County Convention Center (1978), the light rapid rail transit system along Main Street (completed in 1985; which eliminated vehicular traffic from Main Street in the project area), the downtown baseball stadium (1980s; currently named Dunn Tire Park), the HSBC arena at the foot of Main Street (1990s; west of Site C), and the HSBC Atrium (1990). In 1998, Buffalo was estimated to have a population of 300,717, and Erie County was estimated to have a population of 934,471 (Bisco 1986: *passim*; Marist College 2000).

2.3.3 Archaeological Site File Review. A review of archaeological site files was conducted at the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) and the New York State Museum (NYSM) for PCI by Ms. Kerry L. Nelson in April 2001.

The site file review identified 24 archaeological sites within one mile of the three proposed alternatives for the new Buffalo Convention Center (see Table 1). Of these sites, 18 of them are historic period sites, five are prehistoric period, and one is unidentified.

Early archaeological surveys recorded and published by Squier (1851), Beauchamp (1900), Houghton (1909), and Parker (1922) do not record the presence of any prehistoric sites within the project area. However, the NYSM files indicate that Parker identified one site in the general area of the Mohawk Site A and the Existing Convention Center Site B. The site, NYSM #7123, is described as "traces of occupation." The site boundary as identified in the NYSM archives covers over 900 acres. Parker generally used broad, exaggerated boundaries to obscure site locations from vandals. It is highly unlikely that the actual site boundaries were within Site A or Site B. Parker also recorded two other prehistoric sites, NYSM #3181 (camp), and NYSM #3253 (traces of occupation) both of which are located over 4,000 feet (1,220 meters) from Sites A and B.

Later archaeological investigations by Ritchie (1980) and Ritchie and Funk (1973) also do not report the presence of archaeological sites in the project area, although Ritchie (1980:44) notes numerous beveled adze-finds (Lamoka phase) north of the project area between Buffalo and Cayuga creeks. Two important and well known prehistoric Iroquoian villages, Buffam and Eaton, are located well to the east of the proposed project locations.

Three historic sites were identified approximately 1,000 ft (305 m) north of the Mohawk Site A. These sites, NYSOPRHP Numbers A02940.023493, A02940.023494, and A02940.023495, were located during a communication project survey. The first two sites were described as a late 19th to early 20th century brick drain and trash midden, and the third site as a mid-19th century brick drain, respectively. A more detailed description is presented above in Table 1.

Table 1. Previously identified archaeological sites within or in proximity to the proposed New Buffalo Convention Center locations

NYSM #	OPRHP #	Description	Approximate Distance from Closest Proposed Project Location
	02940.000015	**Buffalo Plank Road (UB 1682).** Log pavement; reported by SUNY at Buffalo.	one-mile radus
	02940.000123	**Buffalo E (UB 168).** Early and Late Woodland; reported by Prake	500 feet from Waterfront Site C
	02940.000125	**Buffalo I (UB 172).** Reported by Prake	4,000+ ft from Mohawk Site A
	02940.004623-D05	**Erie Canal Grand Canal, Prime Slip and Commercial Slip Areas.** Remains of the canal, associated structures, locks and other features; reported by Earl J. Prahl.	1,000 ft or less from Waterfront Site C
	02940.019631	**Marine Midland Arena/Miley Site.** Mid-19th century; artifacts include brick, limestone, block foundation, wood plank, cast iron pipes, window glass, nails, whiteware, yelloware, stoneware, bottle glass, container glass, leather, coal and slag; reported by Warren Barbour and Elaine Herold.	Across street from Waterfront Site C
	02940.019632	**Marine Midland Arena Parking Lot Site.** Late 19th century and early 20th century; artifacts include limestone block foundation and limestone grinding stones; reported by Warren Barbour.	Less than 1,000 ft from Waterfront Site C
	02940.019633	**Marine Midland Arena/ Martin Phillips Site.** Mid-19th century; artifacts include brick, limestone block foundation, wood plank, stoneware pipes, window glass, nails, whiteware, yelloware, stoneware, bottle glass, container glass, clay tobacco pipes, brier tobacco pipes, syringes (rubber and glass), buttons, cloth, leather shoe parts, porcelain miniatures, brass knuckles, coins, non-human bone, cutlery and toothbrush; reported by Warren Barbour.	Less than 1,000 ft from Waterfront Site C
	02940.023356	**Wilcox Mansion Well.** 19th or early 20th century; foundation (poured concrete), well (mortared brick oriented bed, radiating outwards, interior coated with parching [similar to mortar]). Few Artifacts found; reported by Cynthia J. Jackson.	More than 5,000 ft from existing convention center Site B
	02940.023417	**MFS Link 9, Monitored Area.** Mid- to late 19th century; artifacts include brick and mortar pillar, drain, wall, unmortared cut stone wall, concentration of mid- to late 19th century artifacts, possible midden, brick and mortar wall resting on cut stone footers; reported by Cynthia J. Jackson.	1,000 ft from Waterfront Site C

NYSM #	OPRHP #	Description	Approximate Distance from Closest Proposed Project Location
	02940.023418	**MFS Link 25.** Late 19th-early 20th century; yellow sandstone foundation, brick fill under wood layer, with cobblestones scattered throughout, brick and grey sandstone foundation. Artifacts include undercoated porcelain, blue transfer-print whiteware, brick and cut sandstone; reported by Cynthia J. Jackson.	1,000 ft from Waterfront Site C
	02940.023440	**Carroll Street Freight House Site.** The former freight house was demolished in 1984. Tracks were razed and lot graded. Fill brought in from the Elm-Oak arterial of the Niagara Section of the New York State Thruway, which is located west of the site. Artifacts recovered from the mounded fill are believed to be associated with this other area; reported by Elaine B. Herold.	1,000 ft from Waterfront Site C
	02940.023479	**Washington Street Sites (Loci 1-3).** Locus 1 (1851-1914): fragmented Onondaga limestone wall, approximately 4 ft-x-2 ft, below current blacktop street level. Locus 2 (1914-1963): reinforced concrete passenger tunnel with pipe gallery connected on the southern wall. Locus 3 (mid-to late 19th century): Medina sandstone pavers, Onondaga Limestone cobbles, iron cut nails, hardwood railroad ties and glass insulator caps uncovered below current blacktop grade; reported by Michael P. Schifferli	More than 1,000 ft from Waterfront Site C
	02940.023480	**Columbia Street**, between South Park Avenue and Perry Street. Cobblestone District, Loci 4: cobblestone street with historic cultural material deposit. Onondaga limestone cobblestone street (ca. 1820-1930); reported by Michael P. Schifferli.	Less than 1,000 ft from Waterfront Site C
	02940.023486	**Site 1, Williams Communications FOL Station 301+65 to 302+75 (Corduroy Road).** Early to mid 19th century; hewn round logs, 213 cm long, dry, lain in place without hardware or cementing medium. Artifacts include whiteware ceramic with purple transfer print (ca. 1825) and yelloware ceramic (post-1830) retrieved from the area's general provenience; reported by HAA, Inc..	More than 3,000 ft from Waterfront Site C
	02940.023487	**Site 2, Williams Communications FOL Station 312+57 (Brick Road).** Late 19th to early 20th century; brick surface below the topsoil is flush with concrete bed below. Bricks were cemented together in place; reported by Darrell C. Pinckney, HAA, Inc.	More than 3,000 ft from Waterfront Site C
	02940.023488	**Site 3, Williams Communications FOL, Station 309+40 (structure support beam).** Wood beam 15 cm wide and 18 cm long) left in place at 75 cm below surface grounds; reported by Darrell C. Pinckney, HAA, Inc.	3,000 ft from Waterfront Site c

NYSM #	OPRHP #	Description	Approximate Distance from Closest Proposed Project Location
	02940.023493	**Site 8, Williams Communications FOL, Station 399+00 (Brick Drain).** Late 19th to early 20th century; round in overall appearance; bricks held together by mortar. Approximate size of the drain 40 cm wide by 75 cm long; reported by Darrell C. Pinckney, HAA, Inc.	Less than 1,000 ft from Mohawk Site A
	02940.023494	**Site 9, Williams Communications FOL, Station 398+78 (Trash midden).** Late 19th to early 20th century; no consistent construction apparent; feature was approximately 210 cm in total length; reported by Darrell C. Pinckney, HAA, Inc.	Less than 1,000 ft from Mohawk Site A
	02940.023495	**Site 10, Williams Communications FOL, Station 399+40 (Brick Drain).** Mid- to late 19th century; yellow brick drain, square, held together with mortar. Bricks were stacked 4 high; reported by Darrell C. Pinckney, HAA, Inc.	Less than 1,000 ft from Mohawk Site A
	02940.023496	**Site 11, Williams Communications FOL, Station 292+00 to 295+00 (Debitage).** Pre-contact; artifacts include utilized flake scraper, block flake, bifacial thinning flake and handheld bifaces; reported by Darrell C. Pinckney, HAA, Inc.	4,000 ft from Waterfront Site C
	02940.023497	**Site 12, Williams Communications FOL, Station 301+00 (Brick drain).** Late 19th to early 20th century; round; bricks were mortared together. Approximate size of drain is 40 cm wide and 20 cms long; reported by Darrell C. Pinckney, HAA, Inc.	4,000 ft from Waterfront Site C
3181		Camp reported by Arthur C. Parker, 1922	More than 4,000 ft from existing convention center Site B
3253		Traces of occupation reported by Arthur C. Parker, 1922	More than 4,000 ft from existing convention center Site B
7123		Traces of occupation reported by Arthur C. Parker. 1922.	Actual location unknown, reported boundary to be within Site A and B

No archaeological sites were identified within the Waterfront Site C. However, within an approximately 1,000-ft (305-m) radius of the property 10 archaeological sites have been identified documenting the historic sensitivity of the area.

No archaeological cultural resources were listed on the National Register of Historic Places within or adjacent to any of the proposed alternative sites. However, the former Erie Canal, which has been determined eligible at various locations throughout the State of New York, was present in the City of Buffalo.

Previous Surveys. A review of cultural resources investigations recorded in the files of the NYSOPRHP shows that no previous survey has been conducted within the proposed project area at Site A, B, or C. Areas in the vicinity of the three proposed alternatives, however, have undergone numerous investigation. Reports of these investigations are listed below.

Barbour, Warren T.D.

2001 *Report of the Archaeological Monitoring Efforts for the Cobblestone Distirct, City of Buffalo, Erie County, New York.* Dean & Barbour Associates, Inc., Buffalo.

1998 *The Horizons Waterfront Inner Harbor Project: Stage IA Cultural Resources Literature Search, City of Buffalo, Erie County, New York.* Edited version. Dean & Barbour, Inc., Buffalo

Ecology & Environment, Inc.

1981 *Final Report: Archaeological Monitoring for the Niagara Frontier Transportation Authority Light Rail Rapid Transit System, Buffalo, New York.* Ecology & Environment, Inc., Buffalo.

1993 *Phase IA Cultural Resources Survey for the Proposed Crossroads Sports Arena and Entertainment Complex, Buffalo, New York.* Ecology and Environment, Inc., Lancaster, NY.

Hartgen Archeological Associates, Inc.

2000 *Phase I Archaeological Investigation, Surface Reconnaissance and Monitoring, Williams Communications Fiber Optic Line, City of Buffalo, Erie County, New York.* Hartgen Archeological Associates, Inc., Rensselaer, NY.

1999 *Phase IA Archeological Sensitivity Assessment and Surface Reconnaissance, Proposed Fiber Optic Line, City of Buffalo, Erie County, New York.* Hartgen Archeological Associates, Inc., Rensselaer, NY.

Johnson-Smith, Nancy

1998 *Report of Stage IA/B Cultural Resource Investigation for the Fiber Optic Cable Project from I-90 Interchange at Canastota to Western New York.* Pennsylvania Border, Volume II. Dean and Barbour Associates, Inc., Buffalo.

Keller, Marvin, Michael A. Cinquino, Carmine A. Tronolone, and Charles E. Vandrei, Jr.

1981 *Archaeological Investigations of the Buffalo Log Road Site (UB 1682), Buffalo, New York: Data Recovery Program.* Prepared by Ecology and Environment, Inc., Buffalo.

Longiaru, Christine M., and James Hartner

1998 Preliminary Archaeological and Architectural Reconnaissance Survey, Replacement of the Michigan Avenue Bridge (BIN 2260610) over the Conrail Railroad Tracks and Exchange Street, City of Buffalo, Erie County, New

York. *Reports of the Archaeological Survey* 30(31). State University of New York at Buffalo.

Tronolone, Carmine A.
1985 *Cultural Resource Survey for the Proposed Downtown Buffalo Sports Complex, Erie County, New York.* Prepared by Ecology and Environment, Inc., Buffalo.

Tronolone, Carmine A., and Michael A. Cinquino
1986 *Stage 1B Cultural Resource Survey for the Proposed Downtown Buffalo Sports Complex: Exchange Street Parking Ramp, Erie County, New York.* Ecology and Environment, Inc. Buffalo

Vandrei, Charles E., Brian Lee Nagel, and Mark S. Aldendorfer
1980 Archaeological and Documentary Research on UB 1682, Buffalo Plank Road, City of Buffalo, Erie County, New York. *Reports of the Archaeological Survey* 12(5), State University of New York at Buffalo.

The majority of these field investigations cited above discovered various types of cultural deposits including log roads, the remains of the Commercial Slip of the Erie Canal, historic middens, historic features, and foundations remains. These results clearly document the historic sensitivity of urban Buffalo and the potential for locating buried historic deposits throughout the city.

2.3.4 Historic Map Analysis. The following maps were reviewed for the present study: Quackenboss & Kennedy's 1854 *Map of the City of Buffalo*, Stone and Stewart's 1866 *Map of the City of Buffalo* (Figure 6), Beers' 1880 *Atlas Map of the City of Buffalo* (Figure 7), and Sanborn Fire Insurance Maps (1868, 1889-1925). For each proposed site location, historic land use information from the Sanborn maps are presented in a separate table (Tables 2 through 4).

Quackenboss & Kennedy's 1854 map (not able to reproduce in the current report) classifies brick and/or frame structures and indicates the function of the structure. For the most part, properties along Main Street were frame buildings with stores (Sites A and B). First class brick dwellings with stores were situated along the south side of Genesee Street. Many of the properties identified for Sites A and B on this map were mixed-use dwellings, although the map does not specify the types of mercantile establishments that occupied these buildings.

Within the Mohawk Site (Site A), the Buffalo Company No. 4 Rescue House was identified on the south side of East Huron Street, between Washington and Ellicott streets. Also of note for the Mohawk Site, Trinity Church once stood on the southeast corner of Washington and East Mohawk Street. Organized on October 12, 1836, the Episcopal Church purchased the land on the corner of Washington and Mohawk Streets for $4,750, but the building was not completed until 1842. Six years later, their simple church had been enlarged and included a rectory annex (Smith 1884:II:286).

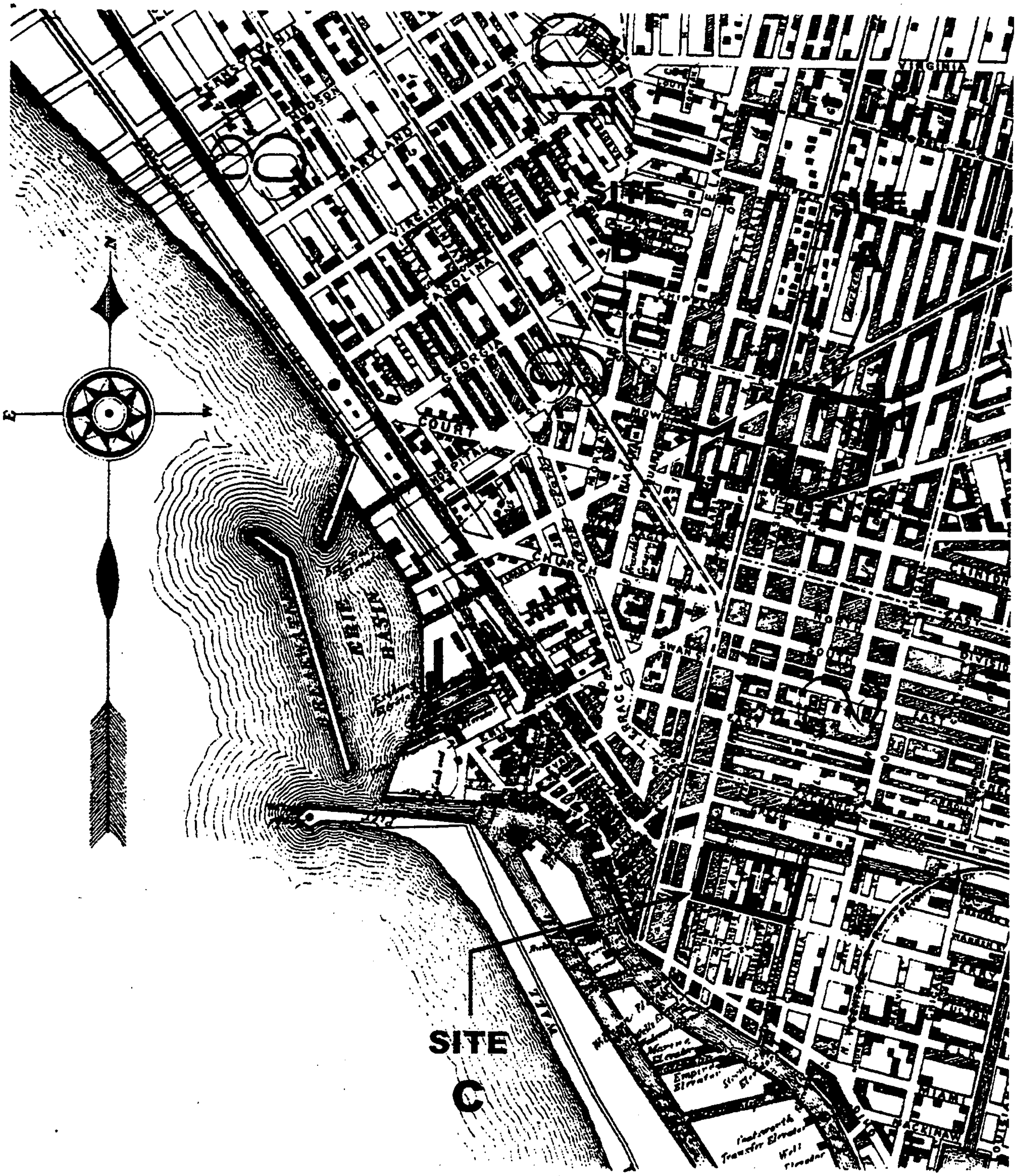


Figure 6. The project areas in the City of Buffalo, Erie County, in 1866 *(Stone and Stewart 1866).*

Figure 7. The project areas in the City of Buffalo, Erie County, in 1880 ***(Beers 1880).***

A watch house was identified in Site B on the northeast corner of Pearl and West Mohawk streets. A Free Baptist Church also was documented adjacent to Site B, on the north side of Genesee Street between Pearl and Franklin streets. The map recorded a Presbyterian Church in proximity to Site B, on the northeast corner of Genesee and Pearl streets. Organized as the Pearl Street Presbyterian Church in November 1935, the group erected its original church building on the northwest corner of Genesee and Pearl streets the following year (Smith 1884:II:279). In 1848, the society reorganized under the name Central Presbyterian Church and built a new structure on the opposite corner (Smith 1884:II:286). The existence of possible burial grounds associated with these early churches is not known.

In 1854, the Waterfront Site (Site C) was largely residential and consisted of frame dwellings. Public School No. 3 was recorded on the north side of Perry Street between Illinois and Mississippi Streets. Bethel Church was identified on the northwest corner of Perry and Illinois Streets.

In contrast to the Quackenboss & Kennedy map, the 1868 Sanborn *Fire Insurance Map of the City of Buffalo* provides a wealth of detail (the map is not reproduced in the current report). The map contains building material information as well as function for almost every property documented. Commercial interests on Main Street (Sites A and B) dominated the streetscape with a variety of establishments that included: milliners, grocers, a cutlery store, hardware stores, banks, a plumber, haberdasheries, dry goods stores, a confectioner, a furniture store, a tobacconist, a liquor store, a botanical drug store, and a purveyor of chinaware. Properties on East Genesee Street in the Mohawk Site also hosted a variety of specialty shops. Most of these commercial interests were located in brick or brick and frame buildings ranging from three to four stories. Many of the dwellings that appear on the 1889 Sanborn map for each of the proposed locations were recorded on the 1868 map.

In Site A, a birdcage factory was documented at 510 Washington Street and Washington Savings Bank was recorded at 437-439 Washington Street (Site A). The Engine House illustrated on the 1854 map was also recorded in 1868. A coffin factory, bakery, a boot shop and a book binder were located on the same block as the engine house. The Hersee Furniture Factory was first recorded on the 1868 map at the foot of East Mohawk Street, on the east side of Ellicott Street at Hersee Alley. A brewery also was identified at 20 Broadway and a saloon was located next door. The Machine Shop and Brass Works was first recorded in 1868 at 46-48 Broadway and a dyers shop was located at 50 Broadway. At Site C, Farrar and Company Iron Works were recorded at 54-56 Perry Street in 1868. A soap factory was documented at 24 Burwell Place and, on the same block there was a grocery store. School No. 3 also was depicted on the 1868 map.

The 1866 map of the City of Buffalo (Stone and Stewart) shows densely populated blocks for each of the proposed convention center sites, however, only a few of the properties documented are identified on the map (see Figure 6). At that time, the city's

main government buildings centered on and around Lafayette Square, which is adjacent on the southwestern edge of the Mohawk Site (Site A). The 1880 Beers map also shows the city blocks, but does not identify the occupant (see Figure 7).

A panoramic view of the city from 1902 (Figure 8 [Sites A and B] and Figure 9 [Site C]) offers a detailed glimpse of the city from just after the turn of the nineteenth century. This view identifies numerous buildings and structures within the three proposed new convention center alternatives.

2.3.4.1 Mohawk Site (Site A). During the second half of the nineteenth century the Mohawk Site was densely populated with both commercial buildings and residences. Beginning in the late nineteenth century, residential homes in the city's central business district were replaced by commercial and light industrial buildings. Sanborn *Fire Insurance Maps* from 1889 through 1925 document this changing use of the Mohawk Site from mixed commercial and residential to almost entirely commercial. The late nineteenth century Sanborn maps record a variety of small specialty stores along the west side of Main Street (500 Block). Unlike other areas within the Mohawk Site, the 500 Block of Main Street and the 3-story commercial buildings on East Genesee Street represent the small-scale vernacular commercial buildings that once comprised much of the city's central business district.

The Sanborn maps also document the gradual transformation of properties along Washington, Ellicott and Oak streets from scattered, small-scale commercial buildings and residences to a compressed area of large, auxiliary commercial loft buildings and light industrial buildings. During the first half of the twentieth century, businesses associated with several of Buffalo's major industries occupied lots within the Mohawk Site boundaries. In the early twentieth century, warehouses were constructed along Washington Street to support the retail industry, whereas light industrial enterprises emerged on Ellicott Street.

Since the Mohawk Site is partly located along Buffalo's primary thoroughfare and is adjacent to one of the city's major public squares, the site also supported theaters, a concert hall, a bank, hotels, saloons, restaurants, a Turkish bath and a library. Almost all of the buildings associated with these once thriving establishments have been either demolished or replaced.

Table 2 provides a summary of the types of buildings and businesses identified on the Sanborn *Fire Insurance Maps* from 1889 to 1925, as well as the extant structures. The current Sanborn map is a revised 1986 version (Figures 10 through 14) that approximately represents the current condition of the site (with some exceptions). The table begins with the east side of Main Street (from south to north) and then lists the primary south-north thoroughfares in the Mohawk Site east to Oak Street. The west side of the streets are addressed first, followed by a listing of properties on the east side. All properties appear on the chart in ascending street address order. West-east roads are listed as follows: Broadway, East Genesee Street and East Huron Street.

Table 2 Historic Map Analysis of Sanborn Maps for the Mohawk Site (Site A).

Address	1889 Map	1899 Map	1925 Map	Bldg Extant
West Side of Main Street between East Mohawk Place and East Huron Street				
495-497 Main Street	Store/Hall; 5-Br.	Furniture; 7	—	No
499 Main Street	Store; 3-Br.			
501-503 Main Street	Store/Cutlery & Grinding; 3-Br.	Store; 3-Br.	Store; 3-Br.	Yes
505-507 Main Street	Store/Hardware & Stoves/Tinshop; 3-Br.	Store; 3-Br.	Store; 3-Br.	No
509 Main Street	Store/Wallpaper, Picture & Frames; 3-Br.	Store; 3-Br.	Store; 3-Br.	No
511-513 Main Street	Dry Goods Store; 3-Br.	Store: 3-Br.	*Loew's State Theatre–entrance (ca. 1921, a.k.a. Century Theatre)	No
515-519 Main Street	Store/Trunks, Jewelry; 2 1/2–Br.	*Store;4-Br.	—	No
521 Main Street	Dry Goods Store; 4-Br.	Store; 4-Br.	Store; 4-Br	Yes
523 Main Street	Saloon/Restaurant; 3-Br.	Store; 3-Br.	Store; 3-Br.	Yes
525-527 Main Street	Store; 4-Br.	Store; 4-Br.	Store; 4	Yes
529-533 Main Street	Irlbaccker & Davis Plumbers and Steamfitters; 4-Br.	Plumbers & Supplies; 4-Br.	*"One Store"-529, "Drugs"-533; 4-Br.	Yes
535 Main Street	Store; 4-Br.	Saloon; 4-Br.	Store; 4-Br.	Yes
537-539 Main Street	Store; 3-Br.	Store; 3-Br.	Store; 3-Br.	Yes
West Side of Washington Street from East Mohawk Place to East Huron Street (S-N)				
478 Washington St.	Store; 3-Br.	Store; 3-Br.	Store; 3-Br.	No
480 Washington St.	Dwelling; 2-Fr.	Store; 2-Fr.	Store; 2-Fr.	No
482 Washington St.	Store; 2-Fr.	unknown	*Loew's State Theatre (ca. 1921, a.k.a. Century Theatre)	No
484 Washington St.	Dwelling; 21/2-Br.	Saloon; 2 1/2-Br.		
488 Washington St.	Store; 2-Fr.	Dwelling; 2-Fr.		
490 Washington St.	Dwelling; 2-Fr.	Dwelling; 2-Fr.		
494-496 Washington St	Storage; 5-Br.	Storage;5-Br.		
500 Washington St.	Store; 5-Br.	Store: 5-Br.	*ca. 1920	Yes
502 Washington St.	Marbleworks; 2-Br.	2-Br.	Store; 2-Br.	No

Address	1889 Map	1899 Map	1925 Map	Bldg Extant
504-508 Washington St	Fries & Co. Brass Foundry;3-Br.	Storage-504-506, Pipe Shop-508; 3-Br.	Store; 3-Br.	Yes
510 Washington St.	Store/Tinshop; 4-Br.	Saloon; 4-Br.	*loft building; ca. 1920	Yes
512 Washington St.	Stable; 1-Br.	Stable; 1-Br.	—	No
514 Washington St.	Feed Store; 3-Br.	Furniture; 3-Br.	*Furniture Warehouse	No
516 Washington St.	Store; 3-Br.	Store; 3-Br.		
518 Washington St.	Store; 5-Br.	Store; 5-Br.		
520 Washington St.	Dry Goods Store; 5-Br. (French's Block)	Dry Goods Store; 5-Br..		
East Side of Washington Street from Broadway to East Huron Street (S-N)				
437-439 Washington St	1st fl. Buffalo Savings Bank, 2nd fl. Grosvenor Library; 2-Fr. Special	Buffalo Savings Bank; 2-Fr. Special	*Lafayette Theatre; 3- Br. (ca. 1922)	No
443 Washington St.	Dwelling; 3-Br.	Saloon; 3-Br.		
445-449 Washington St.	Corinne Lyceum (Theatre); 3-Br.	Lyceum Theatre and saloon; 3-Br.		
451-455 Washington St	—	Store;5-Br.	Wm. Hengerer Co. Warehouse; 6-Br.	No
457 Washington St.	Dwelling; 2-1/2-Br.	*Store; 6	Loft Building and Store; 6 (Howard Building)	No
459 Washington St.	Dwelling; 3-Br.			
461 Washington St.	Stuart's Livery; 2-Br.	Livery; 2-Br.	*Store; 1	No
463-467 Washington St	Liedertafel Hall, Concert Hall with saloon; 2	walls for building, no roof; 2	* Office Building; Steel Frame (Remington Rand Bldg. ca. 1909-1911	Yes, ca.1909-1911 bldg.
477-479 Washington St	Store, Finishing Upholstery, Furniture Whse.;4-Br.	Store, Furniture Warehouse; 4-Br. (Tifft Block)	Store; 4-Br. (B.A.S. Estate Building)	No
481 Washington St.	Store, Paperbox Factory; 4-Br.	Store; 4 -Br.(Tifft Block)	Store; 4-Br. (B.A.S. Estate Building)	No
483-485 Washington St	Store, Shoe Factory; 4-Br.	Store;4 (Tifft Block)	Store; 4-Br. (B.A.S. Estate Building)	No
487-489 Washington St	Store, laundry; 4-Br.	Store; 4-Br. (Tifft Block)	Store; 4-Br. (B.A.S. Estate Building)	No

Address	1889 Map	1899 Map	1925 Map	Bldg Extant
491 Washington St.	Store; 4-Br.	Store; 4-Br.	Liquor store; 4-Br.	No
495 Washington St.	Store; 2-Fr.	Restaurant; 1-2/Fr.	*Store; 2	No
499 Washington St.	Dwelling; 2	Dwelling; 3	*ca. 1910-11, loft bldg.	Yes
501-505 Washington St	Store; 1 (1-story Br. Dwelling behind)	Store;1	*ca. 1923-24, Washington Bldg.	Yes
507-509 Washington St	Dwelling; 2-Fr.	*Store; 4-Br. (Various Mfg.)	Store;4-Br. (Various Light Mfg.).	No
511-515 Washington St	Dwelling; 2-Fr	*Store; 4-Br. (Various Mfg.)	Store 4-Br. (Various Light Mfg.)	No
517 Washington St.	Store, Furniture; 3-Br.	Store; 3-Br.	Store; 3-Br.	Yes
519 Washington St.	Store; 3-Br.	Store; 3-Br.	Store; 3-Br.	Yes
521 Washington St.	Store, Picture Frames, Umbrella Factory; 3-Br.	Store; 3-Br.	Store; 3-Br.	
523-525 Washington St	Store; 3-Br.	Saloon; 3-Br	* ca. 1920, Store; 3	Yes
West Side of Ellicott Street from Broadway to East Huron Street (S-N)				
278 Ellicott Street	Dwelling; 3-Br.	Dwelling; 3-Br.	Store; 31/2-Br.	No
282 Ellicott Street	Dwelling; 2 -Br.	Dwelling; 2 -Br.	Dwelling; 2 -Br.	No
286 Ellicott Street	Dwelling; 2 -Fr.	Dwelling; 2 -Fr.	Dwelling; 2 -Fr.	No
288 Ellicott Street	Dwelling; 2 -Br.	Dwelling; 2 -Br.	Dwelling; 2 -Br.	No
290 Ellicott Street	Dwelling; 2 -Br.	Dwelling; 2 -Br.	Dwelling; 2 -Br.	No
292 Ellicott Street	1 -Fr.	—	—	No
294 Ellicott Street	1 -Fr.	—	—	No
296 Ellicott Street	Dwelling; 2-Fr.	Dwelling; 2-Fr.	Dwelling; 2-Fr.	No
298 Ellicott Street	—	Store; 4 (ca. 1900)	Store; 4 (Plumber)	Yes
300 Ellicott Street	—			
302 Ellicott Street	—			
304 Ellicott Street	—	Store; 4	Saloon; 4	No
322-324 Ellicott Street	Stable; 2	Private Stable; 2	*Car Garage; 3	No
326 Ellicott Street	Horse Shed; 1	1story	Auto Stalls; 1	No
336 Ellicott Street	Dwelling; 2	Dwelling; 2	—	No

Address	1889 Map	1899 Map	1925 Map	Bldg Extant
332-336 Ellicott Street	—	—	City of Buffalo Public Welfare Bldg. & Fire Dept. Headquarters	No
338 Ellicott Street	Dwelling; 2	*Furniture Storage;3	* Coffee Roasting Whole Coffee; 1-conc. block	Yes
340 Ellicott Street	Store; 2			
342 Ellicott Street	Dwelling; 1	—	—	No
344 Ellicott Street	Dwelling; 1	Dwelling; 1	* new 2 story bldg.	No
348-350 Ellicott Street	Dwelling; 3-Br.	3-Br.	Store; 3-Br.	Yes
352 Ellicott Street	Store; 4-Br.	4-Br.	Rooms; 4-Br.	No
East Side of Ellicott Street from Broadway to East Huron Street (S-N)				
285 Ellicott Street	Dwelling; 2 ½ -Br.	Store; 2 ½ -Br.	*printing; 2-Br. ca. 1925	Yes
287 Ellicott Street	Dwelling; 2 ½ -Br.	Store; 2 ½ -Br.		
289 Ellicott Street	Dwelling; 2 ½ -Br.	Store; 2 ½ -Br.		
291 Ellicott Street	Dwelling; 2-Br.	Dwelling; 2-Br.	Dwelling; 2-Br.	No
295 Ellicott Street	Apollo Hall; 4-Br./Fr (Music Hall 3rd fl.).	—	*Dwelling; 2-Br.	No
295 Ellicott Street	Apollo Hall; 4-Br./Fr (Music Hall 3rd fl.).	—	*Dwelling; 2-Br.	No
301 Ellicott Street	Dwelling; 2	Dwelling; 2	*Van Hoesen Wholesale Wallpaper	Yes
303-311 Ellicott Street	Storage Lumber, Warehouse (1-5th fl.), Upholstery (4th fl.)	Hersee & Co. Furniture Factory/Storage; 5-Br.	Hersee & Co. Furniture Factory/Storage; 5-Br	No
Note: Hersee Place was originally Koon's Alley (1889)				
317 Ellicott Street	Dwelling; 2	Dwelling;2	Dwelling;2	No-dwell. Yes-carriage house
319 Ellicott Street	Dwelling; 2	Dwelling;2	Dwelling;2	
321 Ellicott Street	Dwelling	*Factory; 4	Plumber's Supplies; 4	Yes
323 Ellicott Street	Dwelling			
325 Ellicott Street	—	—	*Garage; 1	Yes
327 Ellicott Street	Dwelling; 2	Dwelling; 2		
329-331 Ellicott Street	H.J. Fox Livery;	Livery; 2	Warehouse; 2	Yes
335-337 Ellicott Street	Dwelling; 2	Dwelling; 2	Office; 21/2	No

Address	1889 Map	1899 Map	1925 Map	Bldg Extant
339 Ellicott Street	Dwelling; 2	Dwelling; 2	Rooms; 2 (Store in basement)	No
341 Ellicott Street	Dwelling; 2	Dwelling; 2	Rooms; 2 (Store in basement)	No
345 Ellicott Street	Dwelling; 2	Dwelling; 2	Rooms; 2 (Store in basement)	No
349 Ellicott Street	Dwelling; 2	Dwelling; 2	Flat; 2	No
353 Ellicott Street	Store; 2	Store; 4	Store; 4	No
355 Ellicott Street	Store; 3	Store; 4	Mission; 4	No
West Side of Blossom Street Between Broadway and East Huron Street (S-N)				
12 Blossom Street	Stable; 2	Stable; 2	—	No
16 Blossom Street	Carriage shed; 2	Shed; 1	—	No
18 Blossom Street	Stable; 2	Stable; 2	—	No
28 Blossom Street	Stable; 2	Stable; 2	—	No
32 Blossom Street	Stable; 2	*Factory; 4	Plumber's Supplies; 4	No
34 Blossom Street	Stable; 2	*Factory; 4	Plumber's Supplies; 4	
36 Blossom Street	Stable; 2	*Stable; 2	Garage; 2	
38-40 Blossom Street	Hack Stable; 2-Br.		Warehouse; 2	
42 Blossom Street	—			
44 Blossom Street	Livery H.J. Fox; 2-Br.		Garage	
48 Blossom Street	2-Fr.			
50 Blossom Street	Stable; 2			
52 Blossom Street	Stable	Stable	—	No
54 Blossom Street	Stable: Fr.	Stable: Fr.	—	No
56 Blossom Street	Stable; Br.	Stable; Br.	—	No
58 Blossom Street	Dwelling; 2-Br.	Dwelling; 2-Br.	Dwelling; 2-Br.	No
60 Blossom Street	Dwelling; 2-Br.	Dwelling; 2-Br.	Dwelling; 2-Br.	No
62 Blossom Street	1-Br./Fr.	1-Br./Fr.	—	No
EAST SIDE OF BLOSSOM STREET BETWEEN BROADWAY AND EAST HURON ST. (S-N)				
Blossom Street	Unknown	Unknown	*Electric City Box Co. on 2nd Floor.	No
31 Blossom Street	Dwelling; 2			

Address	1889 Map	1899 Map	1925 Map	Bldg Extant
33-37 Blossom Street	Stable, "Hack Barn"; 2	Private stable; 2		
29 Blossom Street	Unknown; 1	Unknown; 1	*Auto Parking Space Note: A gas station was located on the southeast corner of East Huron and Oak Streets	No
41 Blossom Street	Stable;1	Unknown; 2		
47 Blossom Street	---	Stable; 3		
49 Blossom Street	Dwelling; 2	Dwelling; 2		
51 Blossom Street	Dwelling; 2	Dwelling; 2		
53 Blossom Street	Coal and Wood Shed; 1	Shed; 1		
55 Blossom Street	Stable; 2	Stable; 2		
57 Blossom Street	Wood and Coal yard--no building.	open lot		
61 Blossom Street	Callahan Livery;2	Private livery; 2		
62 Blossom Street	1-Br./Fr.	1-Br./Fr.	—	No
WEST SIDE OF OAK STREET BETWEEN BROADWAY AND EAST HURON ST. (S-N)				
180 Oak Street	Dwelling;2-Br.	*Saloon:5 Dwelling;2	Electrical Supplies/ Machine Shop (frontage on 66-70 Broadway)	No
182-184 Oak Street	Rag Whse..; 4-Br.			
188 Oak Street	Dwelling;2-Br.			
190 Oak Street	Dwelling;2-Br.			
192 Oak Street	Dwelling;2-Br.	Dwelling;2-Br.	Dwelling;2-Br.	No
194 Oak Street	Dwelling;2-Br.	Dwelling;2-Br.	Store;2-Br.	No
198 Oak Street	Store; 2-Fr.	Saloon;2-Fr.	*Warehouse;1-Br. (ca. 1923- J.E. Smith Sons)	Yes
200 Oak Street	Dwelling;2-Fr.	Dwelling;2-Fr.	*Electric City Box Co.;2	Yes
204Oak Street	Dwelling;2-Fr.	Saloon;2-Fr.		
206 Oak Street	Dwelling;2-Fr.	Dwelling;2-Fr.		
210 Oak Street	Dwelling;2-Fr.	Dwelling;2-Fr.		
214 Oak Street	Dwelling;2-Fr.	Dwelling;2-Fr.	—	No
218 Oak Street	Dwelling;2-Fr.	Dwelling;2-Fr.	—	No
220 Oak Street	Dwelling;2-Br.	*1 story	—	No
224 Oak Street	wood shed; 1	Livery	—	No
230 Oak Street	Builder's Materials, Carpenter's Bench; 2-Br./Fr.	—	—	No

Address	1889 Map	1899 Map	1925 Map	Bldg Extant
North Side of Broadway from Washington to Oak Street (W-E)				
NEC Broadway & Washington Street	Grosvenor Library; 2	Buffalo Savings Bank; 2	——	No
12 Broadway	Store; 2	Saloon; 2		No
14 Broadway	Store; 2	Store; 2		No
16 Broadway	Store; 4	Saloon, 4 ½		No
18 Broadway	Store; 1	Store; 1		No
20 Broadway	Store; 2 ½	Saloon; 2 ½	*garage (ca. 1910-1911)	No
26 Broadway	Store; 4	Saloon; 4	Korsts Hotel; 4	No
28 Broadway	Store; 3	Saloon; 3	Store (A/B);3	No
36-40 Broadway (Buehl's Block)	Store,grocery/liquors; 3-Br.	Hotel Ireland, saloon; 4-Br.	Store;4	Yes
42-44 Broadway	Store; 3	Restaurant; 3	Broadway Hotel	No
46-48 Broadway	Foundry, Printing: 3	Printing, Saloon; 3	Printing, Office; 3	No
50 Broadway	John Smith & Son Meat Chopper/ Machine Shop; 3-Br.	John Smith & Son Meat Chopper; 3-Br.	John e. Smith & Sons, Store; 3-Br.	Yes
56-60 Broadway	Lesswing & Stines Carriage Factory, Repository, Bsmith, Wagon shop; 2-Br.	Store: 2-Br	Wholesale & Retail Wallpaper; 4	No
62 Broadway	Dwelling; 2-Br.	Dwelling; 2-Br.	Store; 2 Br.	No
66 Broadway	Rag Warehouse	Steam laundry, Carpet cleaning; 4-Br	Electrical Supplies/Machine Shop; 4-Br.	No
North Side of East Mohawk Street Between Main and Ellicott Streets (W-E)				
12 -14 E. Mohawk Street	Dwelling; 4	Dwelling; 4	Store; 3	No
40 E. Mohawk Street	Dwelling; 2 ½ -Br.	Turkish Bath; 3	Zenith Baths; 3	No
44 E. Mohawk Street	Dwelling; 2-Br.			
46 E. Mohawk Street	Dwelling; 3-Br.	Dwelling; 3-Br.	—	No
48 [52] E. Mohawk Street	Dwelling; 2	Dwelling; 2	—	No
50 [56] E. Mohawk Street	Dwelling; 2	Dwelling; 2	"___ News Co"; 3	No

Address	1889 Map	1899 Map	1925 Map	Bldg Extant
South Side of East Mohawk Street Between Washington and Ellicott Streets (W-E)				
SEC of Washington and E. Mohawk Streets	Liedertafel Hall, Concert Hall.	Walls for Bldg.; 2	—	No
43 [47]East Mohawk Street	Upholstery; 2	*The Le Roy; 4	Flat; 4	Yes
47 East Mohawk Street	2-Br..	*Saloon; 4	Store; 4	Yes
51 East Mohawk Street	Dwelling; 1-Br.			
South Side of East Genesee Street Between Main and East Huron Streets (W-E)				
3 East Genesee Street	Store; 3-Br.	Store; 3-Br.	Store; 3-Br	Yes
5 East Genesee Street	Saloon; 4-Br.	Saloon; 4-Br.	Store; 4-Br.	Yes
7 East Genesee Street	Store; 3-Br.	Store; 3-Br.	Store; 3-Br.	Yes
9 East Genesee Street	Saloon; 3-Br.	Store; 3-Br.	Store; 3-Br.	Yes
11East Genesee Street	Dry Goods; 3-Br.	Store; 3-Br.	Store; 3 -Br.	No
13 East Genesee Street	Store, Music; 3-Br.	Store; 3-Br.	Store; 3-Br.	No
15 East Genesee Street	Store; 3-Br.	??; 3-Br.	Store; 3-Br.	No
17 East Genesee Street	Store, Offices; 3-Br.	Store; 3-Br.	Store; 3-Br.	No
19 East Genesee Street	Store; 3-Br.	Store; 3-Br.	Store; 3-Br.	No
5-9 East Huron Street	French's Block; 5-Br.	French's Block, Furniture Warehouse; 5-Br.	Store & Storage; 6	No
South Side of East Huron Street Between Genesee and Oak Streets (W-E)				
17 East Huron Street	Store; 3-Br.	—	—	No
19 East Huron Street	Store; 3-Br	Store; 3-Br	Store; 3-Br.	No
21 East Huron Street	Chinese Laundry, Brewer's Supplies; 3-Br.	Store; 3-Br.	Store; 2-Br.	No
23 East Huron Street	Store; 3	Store; 3	**"Lande Bldg." (ca. 1919)	Yes, ca.1919 bldg.
25 East Huron Street	Store; 3	Store; 3		
27 East Huron Street	Dwelling; 2	Dwelling; 3		
31 East Huron Street	Store; 2-Br./Fr. (Coffin Fact./Whse.)	Store; 2	Store: 2	No

Address	1889 Map	1899 Map	1925 Map	Bldg Extant
33 East Huron Street	Printing; 2-	Store; 3		No
35-39 East Huron Street	Springfels & Weil Plush Case Factory; 3-Br.	Office, saloon; 3-Br.	Stores;3-Br.	No
53 East Huron Street	Dwelling;2 ½ -Fr.	Dwelling;2-Fr.	—	No
55 East Huron Street	Dwelling;2 -Fr.	Dwelling;2-Fr.	—	No
57 East Huron Street	Dwelling;2-Fr.	Dwelling;2-Fr.	—	No
59 East Huron Street	Dwelling;2 -Fr.	Store;2-Fr.	—	No
63 East Huron Street	Dwelling, Livery; 2 -Br.	Private Livery	—	No
67 East Huron Street	Dwelling;2 -Fr.	Dwelling;2-Fr.-Br.	—	No
69 East Huron Street	Dwelling;2-Br.	Dwelling;2-Br.	—	No
71 East Huron Street	Dwelling;2 -Br.	Dwelling;2-Br.	—	No
73 East Huron Street	Dwelling;2 -Br.	Dwelling;2-Br.	—	No
75 East Huron Street	Dwelling;2 -Br.	Dwelling;2-Br.	—	No

Key for Historic Map Analysis Tables

1-10 Number of stories of building
Br. Brick construction
Fr. Frame construction
— Does not appear on map
• New structure at same location
Whse. Warehouse
unk. Unknown

Note: Stores and saloons usually occupied first floor.

2.3.4.2 Existing Buffalo Convention Center Site (Site B). During the mid-to late nineteenth century, the existing Buffalo Convention Center Site shared a similar building stock as the Mohawk Site with a mix of vernacular commercial buildings and dwellings. However, buildings constructed on Site B in the early twentieth century were distinguished from those of the Mohawk Site by virtue of their location and use. This section of the city became the retail shopping district due to its immediate proximity to the offices of the financial and government districts of the city. Large department stores such as Hens and Kelly, L.L. Berger, and Edward's replaced smaller commercial buildings on the west side of Main Street. These multi-storied retail houses extended their operations with either additional frontage or ancillary storage warehouses on Pearl Street.

Table 3 provides a summary of the types of buildings and businesses identified on the Sanborn *Fire Insurance Maps* from 1889 to 1925 on the existing Buffalo Convention Site. The table begins with the west side of Main Street (from south to north) and then lists the primary south-north thoroughfares in the Existing Buffalo Convention Site west to Franklin Street. All properties appear on the chart in ascending street address order. East-west thoroughfares are listed as follows: Court Street, West Mohawk Place and West Genesee Street.

Table 3 Historic Map Analysis of Sanborn Maps for the Existing Convention Center Site (Site B).

Address	1889 Map	1899 Map	1925 Map	Bldg. Extant
West Side of Main Street Between Court West Mohawk Streets (S-N)				
436-438 Main Street	Tailor and Barber, Offices, Historical Society, Bank, Masonic Hall; 3-	Western Savings Bank Building; 3	Western Savings Bank Building; 3	No
440 Main Street	Bank, Office; 4-Br.	Store; 4-Br.	unk.;4	No
442 Main Street	Store; 4-Br.	Store; 4-Br.	—	No
444 Main Street	Store; 4-Br.	Store; 4-Br.	F.W. Woolworth Co.-	No
448 Main Street	Store; 3-Br.	Store; 4-Br.		
450 Main Street	Confectionary; 3	Store; 3-Br.	Store; 3-Br.	No?
452 Main Street	Store; 3	Store; 3-Br.	Department Store;3	No
454 Main Street	Store, cigar factory; 3	Store; 3-Br.	Store; 3-Br.	No
458 Main Street	Store, photo gallery; 3	Store; 3-Br.	Drugs; 4-Br.	No
460-466 Main Street	Store, Furniture/ Carpets/Wallpaper; 5-Br.	H.A. Meldrum Co. Dry Goods; 5-Br.	Edwards Department Store; 5-Br.	No, renov. for mall in 1985
468-470 Main Street	Wholesale groceries; 3	Store; 5	—	No
472 Main Street	Upholstery; 4-Br.	Store; 4-Br. (ca. 1892)	Hens & Kelly, warehouse; 4-Br.	Yes
474 Main Street	Store, vacant offices; 4-Br.			
476 Main Street	Store, vacant offices	Store; 4-Br.		
478 Main Street	"Miller Block" stores with offices and dwellings above; 4	Hens & Kelly Drygoods; Br	*ca. 1925, Hens & Kelly Dept. Store; steel frame	Yes
480 Main Street				
482 Main Street				
484 Main Street		Miller Block; 4-Br.		
486 Main Street				
488 Main Street				
East Side of Pearl Street from Court Street to West Mohawk				
253 Pearl Street	Dwelling, Stable; 2-Br.	*Store; 6	—	No
255 Pearl Street	Dwelling; 3-Br.	Store; 4	F.W. Woolworth Co.	Yes

Address	1889 Map	1899 Map	1925 Map	Bldg. Extant
257 Pearl Street	Dwelling; 3	Store; 4 (possibly Printing)		
259 Pearl Street	Stable; 2	*Store; 4-Br. (ca. 1890)	Store; 4-Br.	Yes
261 Pearl Street	—			
263 Pearl Street	Dwelling; 2			
265 Pearl Street	—	—	loft; 8 *ca. 1905	Yes
269 Pearl Street	Dwelling; 2	Dwelling; 2		
271-273 Pearl Street	Department store/Furniture, carpets; 4-Br.	H.A. Meldrum Co, Dry Goods	Edwards Department Store	
275-277 Pearl Street	Wholesale groceries;4	Unk.;4	Unk;4	No?
279 Pearl Street	—	"Plate glass ??"	*Hens & Kelly warehouse	Yes?
281 Pearl Street	Dwelling; 2-Br.	Dwelling; 3		
283 Pearl Street	Dwelling; 2-Br.	Dwelling; 2		
285 Pearl Street	Dwelling; 4-Br.	Dwelling; 4	ca. 1925; 6	Yes
287 Pearl Street	Dwelling; 4-Br.	Office; 4		
291 Pearl Street	Dwelling; 4-Br.	Unk.; 4		
293 Pearl Street	Dwelling; 4-Br.	Store; 4		
West Side of Pearl Street Between Court and West Mohawk Streets (S-N)				
256 Pearl Street	Dwelling; 2 ½-Br.	*Store; 3 "The Majestic"	Store; 3	No
258 Pearl Street	Dwelling; 3-Br.	*Store; 3 "The Majestic"	Store; 3	No
260 Pearl Street	Dwelling; 3-Br.	*Store; 3 "The Majestic	Store; 3	No
264 Pearl Street	Dwelling; 3-Br.	Dwelling; 3-Br.	Mfg. Opticians; 3-Br.	No
266 Pearl Street	Dwelling; 2 -Br.	Wholesale groc.; 5	E.W. Edwards & Son Department Store (Tunnel under street at #266)	No
270 Pearl Street	Dwelling; 2-Br.			
272 Pearl Street	Dwelling; 2-Br.	Office; 2-Br.	—	No
276 Pearl Street	—	Barnes Hotel; 3-Br.	—	No
278 Pearl Street	Store; 3-Br.			
280 Pearl Street	Dwelling; 2-Br.	Unknown-Br.	Printing; 2-Br.	No

Address	1889 Map	1899 Map	1925 Map	Bldg. Extant
SEC Pearl & Genesee Streets	Levi Opera under construction	Star Theatre	*Note: in 1926 , from 272 Pearl north to Genessee/Mohawk, was the Distr. Director-Intenral Revnue Offices; 2-steel frame	No
East Side of Franklin Street Between Court and West Genesee Streets (S-N)				
145 Franklin Street	Dwelling; 3-Br.	Unknown; 3-Br.	Store; 3-Br.	No
147 Franklin Street	Dwelling; 2 ½ -Br.	Dwelling; 2 ½ -Br.	Store; 2-Br.	No
149 Franklin Street	Dwelling; 2 ½ -Br.	Dwelling; 2 ½ -Br.	E.W. Edwards & Son Furniture	No
155 Franklin Street	Dwelling; 2 ½ -Br.	Dwelling; 2 ½ Br.		
157 Franklin Street	Dwelling; 3-Fr.	Dwelling; 3-Fr.	Lockwood Building	No
159 Franklin Street	Dwelling; 3- Br.	Dwelling; 3-Br.	—	No
North Side of Court Street Between Pearl and Franklin Streets (E-W)				
31-35 Court Street	Davis & Brown Tobacco Whse.;5-Br. Warehouse	*Builder's Exchange; 7	Andrew's Building;7	No
35 Court Street				
37-39 Court Street	Tucker Building, photo supplies;	Hotel Buffalo, Tucker Building; 7	Vacant; 7	No
41 Court Street	Stable;2	Store; 1	*Walbridge Building (ca. 1924); 11-steel frame	Yes
49 Court Street		Restaurant; 1		
51 Court Street		Store; 1		
South Side of West Mohawk Street Between Main and Pearl Streets (E-W)				
8 West Mohawk St.	vacant; 3-Br.	Part of Hens and Kelly; 4	*Hens & Kelly (ca. 1925)	Yes
10-16 West Mohawk St	under construction			
20 West Mohawk St.	side of 291 Pearl Street	Store		
22 West Mohawk St.	side of 291 Pearl Street	Store		
North Side of West Mohawk Street Between Main and Pearl Streets (E-W)				
7-11 West Mohawk St.	Mechanics Instititue;4	Stores; 4	Store;4	
13-23 West Mohawk St	YMCA Building;4	Stores; 5	YWCA Building;5	No
South Side of West Genesee Street Between Main and Franklin Streets (E-W)				
58 Genesee Street	Saloon; 4 part of Levi Flats	*Box Office Entrance	—	No

Address	1889 Map	1899 Map	1925 Map	Bldg. Extant
60 Genesee Street	Levi Flats, vacant; 5	Saloon; 5		No
62 Genesee Street	Levi Flats, Electric supplies; 4-Br.			No
64 Genesee Street	Levi Flats; 4-Br.	Store; 5-Br.	---	No
68 Genesee Street	Store; 5-Br.	Store; 5-Br	---	No
70-72 Genesee Street	Store; 2-Br.	Store; 2-Br.	---	No
76 Genesee Street	Dwelling; 2½	Dwelling; 2½	"Lockwood Building"	No

Key for Historic Map Analysis Tables

1-10 Number of stories of building
Br. Brick construction
Fr. Frame construction
--- Does not appear on map
• New structure at same location
Whse. Warehouse
unk. Unknown

Note: Stores and saloons usually occupied first floor.

2.3.4.3 Waterfront Site (Site C). The Waterfront Site is located in Buffalo's industrial First Ward, south of the city's central business district. Prior to the rise of major industry in this section of the city, the Waterfront Site was mostly residential with brick and frame dwellings occupied by the Italian and Irish immigrants. Late nineteenth century Sanborn *Fire Insurance Maps* of the site show a densely populated residential area with stores and a school surrounded by a few manufacturing complexes. Constructed in 1851, School House No. 3 occupied a large lot on the north side of Perry Street, near Illinois Street. As the nineteenth century progressed, stove works, boiler shops and other manufacturers crowded the upper part of the First Ward. By 1894 the schoolhouse was the second oldest then in use in Buffalo. The school closed in 1922 when a new School No. 3 was built on the Terrace near West Genesee Street.

Several large manufacturing plants were located on the Waterfront Site. Farrar and Trefts Iron Works and the Schoellkopf & Company Leather Manufacturing were the first large-scale operations on the site. Located on the north side of Perry Street between Burwell Place and Illinois Street, Farrar & Trefts had additional facilities on the south side of Perry Street. By the early twentieth century the Lehigh Valley Railroad constructed a freight shed and railroad yard on the Waterfront Site.

None of the Waterfront Site structures documented on the Sanborn maps (1889-1925) are extant. The area currently consists of asphalt parking lot. Table 4 inventories the historic land use of the site. The chart lists properties on the south side of Perry Street and then those on the south side of Scott Street from west to east in ascending street address order. These are followed by south-north streets (from west to east): Beaver Street, Burwell Place, Illinois Street, Mississippi Street. Properties formerly located along the Clark & Skinner's Canal, the eastern boundary of the Waterfront Site, are also included.

Table 4 Historic Map Analysis of Sanborn Maps for the Waterfront Site (Site C)

Address	1889 Map	1899 Map	1925 Map	Bldg. Extant
North Side of Perry Street Between Beaver Street and Burwell Place (W-E)				
42 Perry Street	Dwelling; 2½- Br	Dwelling; 3-Br.	*Lehigh Valley RR Terminal Freight Yard	No
44 Perry Street	Dwelling; 2½- Br	Dwelling; 3-Br.		
46 Perry Street	Sheridan and ??, Wooden and Willow ware; 3	Empire Broom Works; 3-Br.		
48 Perry Street		unknown; 3-Br.		
50 Perry Street	Store; 3-Br.	unknown; 3-Br.		
North Side of Perry Street Between Burwell Place and Illinois Street (W-E)				
54 Perry Street	Farrar and Trefts Iron Works	Farrar & Trefts Iron Works	*Lehigh Valley RR Terminal Freight Yard	No
60 Perry Street				
66 Perry Street				
North Side of Perry Street Between Illinois and Mississippi Streets (W-E)				
76 Perry Street	Store; 3-Br.	Vacant; 3-Br.	Vacant; 3-Br.	No
78 Perry Street	Store; 1 ½ -Br.	--	--	No
80 Perry Street	Public School Nº 3; 3 -Br.	Public School Nº3; 3 -Br.	--	No
82 Perry Street				
84 Perry Street				
86 Perry Street				
88 Perry Street				
90 Perry Street	Dwelling; 1-Fr.	Dwelling; 1-Fr.	Store; 1-Fr.	No
92 Perry Street	Dwelling; 2-Br.	Saloon; 2-Br.	Store; 2-Br.	No
94 Perry Street	Dwelling; 2-Fr.	Dwelling; 2-Fr.	Dwelling; 2-Fr.	No
96 Perry Street	Store; 2-Fr.	Saloon; 2-Fr.	Restaurant; 2-Br.	No
North Side of Perry Street Between Mississippi and Baltimore (Orig [1891] Liberty Street) (W-E)				
104 Perry Street	Store, Tenements; 2-Br.	*Schoellkopf & Co. - Sheepskin Leather Mfg., Niagara Screen Co.,Queen City Engine Co., __ &__ of Skins; 2	Schoellkopf & Co., Leather Tanning, Office & Shipping 1st, Skin Stge & Sorting 2,3,4 & 5th, Dry Room 5 & 7th	No
106 Perry Street	Store, Tenements; 2-Br.			
108 Perry Street	Tenements; 2-Br.			
126 Perry Street	Storage; 1-Fr.			

Address	1889 Map	1899 Map	1925 Map	Bldg. Extant
South Side of Scott Street Between Beaver Street and Burwell Place (W-E)				
41 Scott Street	Store; 2	Saloon; 2½	*Lehigh Valley R.R. Freight Shed; 1-Br.	No
43 Scott Street	Dwelling; 2	Dwelling; 2½		
45 Scott Street	Dwelling; 2	Dwelling; 2½		
47 Scott Street	Dwelling; 2	Dwelling; 2½		
49 Scott Street	Dwelling; 2	Dwelling 2½		
51 Scott Street	[open]	unknown.; 1		
South Side of Scott Street Between Burwell Place and Illinois Street				
53 Scott Street	Store; 2-Fr.	Store; 2-Fr.	*Lehigh Valley R.R. Freight Shed; 1-Br.	No
55 Scott Street	Store; 2-Fr.	Store;2-Fr.		
57 Scott Street	Store; 1-Fr.	Dwelling; 2-Fr.		
61 Scott Street	Dwelling; 2-Fr.	----		
63 Scott Street	Dwelling; 2-Fr.	Store; 2-Fr.		
65 Scott Street	Dwelling; 2-Fr.			
67 Scott Street	Store; 2-Fr.	Store; 2-Fr.		
South Side of Scott Street Between Illinois Street and Mississippi Street (W-E)				
73 Scott Street	Dwelling; 2-Fr.	*Buffalo Scale Co; 3	*Lehigh Valley R.R. Freight Station	No
75 Scott Street	Store; 2-Fr.			
77 Scott Street	Store; 2-Fr.			
79 Scott Street	Dwelling; 2-Fr.			
81 Scott Street	Dwelling; 2-Fr.			
83 Scott Street	Dwelling; 2-Fr.			
87 Scott Street	Dwelling; 2-Fr.			
89 Scott Street	Dwelling; 2-Fr.			
91 Scott Street	Dwelling; 2-Fr.			
93 Scott Street	Dwelling; 2-Fr.			
South Side of Scott Street Between Mississippi Street & Baltimore (Orig [1891] Liberty) Street (W-E)				
103 Scott Street	Dwelling; 2-Fr.	*Fish Ware Ho.	*Lehigh Valley Railroad tracks	No
107 Scott Street	Store; 2-Fr.			
109 Scott Street	Dwelling; 2-Fr.			
111 Scott Street	Dwelling; 2-Fr.	Dwelling; 2-Fr,		

Address	1889 Map	1899 Map	1925 Map	Bldg. Extant
113 Scott Street	Dwelling; 2-Fr.	Dwelling; 2-Fr.		
115 Scott Street	Dwelling; 2-Fr.	Dwelling; 2-Fr.	*Lehigh Valley Railroad tracks	No
117 Scott Street	Dwelling; 2-Fr.	Dwelling; 2-Fr.		
119 Scott Street	Dwelling; 2-Fr.	Dwelling; 2-Fr.		
East Side of Beaver Street Between Perry Street and Scott Street (S-N)				
6 Beaver Street	Dwelling; 2	Vacant; 2½	*Lehigh Valley Railroad Freight Shed	No
Beaver Street	Buffalo Last Works	Store Ho.; 2½		
Beaver Street		Dwelling; 1		
32 Beaver Street	Store; 2-Fr.	Store; 2-Fr.		
34 Beaver Street	Store; 2-Br./Fr.	Store; 2-Br./Fr.		
Beaver Street	Shed; 1	Shed; 1		
Beaver Street	[side of 20 Burwell Place]	Stable; 1½		
West Side of Burwell Place Between Perry Street and Scott Street (S-N)				
	[side of 50 Perry]	[side of 50 Perry	*Lehigh Valley R.R. Terminal Freight Yard	No
	Buffalo Lasts Works	Buffalo Last Co.		
16 Burwell Place	Dwelling; 1-Fr.	Dwelling; 2-Fr.		
18 Burwell Place	Dwelling; 2-Fr.	Dwelling; 2-Fr.		
20 Burwell Place	Dwelling; 2-Fr.	Store; 2-Fr.		
22 Burwell Place	Tenement; 2-Fr.	Dwelling; 2-Fr.		
24 Burwell Place	Stable; 1	Iron "____" House; 1		
28 Burwell Place	Dwelling; 2 ½ -Fr	Dwelling; 2½-Fr.		
32 Burwell Place	Dwelling; 2-Fr.	Dwelling; 2-Fr.		
36 Burwell Place	Dwelling; 2-Fr.	Saloon; 2-Fr.		
38 Burwell Place	Store; 2-Fr.	Saloon; 2-Fr.		
40 Burwell Place	Tenements; 2-Fr.	[side of 51 Scott]		
East Side of Burwell Place Between Perry Street and Scott Street (S-N)				
–	Farrar and Trefts Iron Works	Farrar and Trefts Iron Works	*Lehigh Valley R.R. Terminal Freight Yard	No
33 Burwell Place	Dwelling; 2-Fr..	Dwelling; 3-Fr.		
35 Burwell Place	Dwelling; 2-Fr.	Store; 3-Fr.		
37 Burwell Place	Dwelling; 2-Fr.			

Address	1889 Map	1899 Map	1925 Map	Bldg. Extant
39 Burwell Place	Dwelling; 2-Fr.	Dwelling; 2		
[to corner]	[53 Scott]	[53 Scott]	*Lehigh Valley R.R. Freight Shed	No
West Side of Illinois Street Between Perry Street and Scott Street (S-N)				
[no #]	[side of foundry at 66 Perry]	[side of foundry at 66 Perry]	*Lehigh Valley R.R. Terminal Freight Yard	No
[no #]	Farrar and Treffts Iron Works	"Rattlers"; 1		
[no #]		Storage		
120 Illinois Street	Dwelling; 2-Fr.	Dwelling; 2½-Fr.		
122 Illinois Street	Dwelling; 2-Fr.	Dwelling; 2½-Fr.		
126 Illinois Street	Dwelling; 2-Fr.	Dwelling; 2½-Fr.		
128 Illinois Street	Dwelling; 2-Fr.	Dwelling; 2½-Fr.		
130 Illinois Street	Dwelling; 2-Fr.	Dwelling; 2-Fr.		
132 Illinois Street	Dwelling; 2-Fr.	Store; 2-Fr.		
[to corner]	[side of 67 Scott]	[side of 67 Scott]		
East Side of Illinois Street Between Perry Street and Scott Street (S-N)				
[from corner]	[side of store; 2 at 70 Perry]	[side of factory; 3 at 70 Perry]	[side of Vacant; 3 at 70 Perry]	No
99 Illinois Street	Dwelling; 2-Br.	Dwelling; 2-Br.	Dwelling; 2-Br.	No
101 Illinois Street	Dwelling; 2-Br.	Dwelling; 2-Br.	Dwelling; 2-Br.	No
103 Illinois Street	Dwelling; 2-Fr.	Dwelling; 2-Fr.	Dwelling; 2-Fr.	No
105 Illinois Street	Dwelling; 2-Fr.	Dwelling; 2-Fr.	Dwelling; 2-Fr.	No
107 Illinois Street	Dwelling; 2-Fr.	"Pile of Tan Bark"	*Lehigh Valley Railroad tracks	No
109 Illinois Street	Dwelling; 2-Fr.			
113 Illinois Street	Dwelling; 2-Fr.	Blacksmith; 3-Fr.		
115 Illinois Street	Dwelling; 2-Fr.	Storage; 3		
117 Illinois Street	Dwelling; 2-Fr.			
121 Illinois Street	Dwelling; 2-Fr.			
123 Illinois Street	Dwelling; 2-Fr.			
127 Illinois Street	Dwelling; 2-Fr.			
[to corner]	[side of 77 Scott]	[side of Buffalo Scale Co.]	[side of Lehigh Valley R.R. Freight Station]	No

Address	1889 Map	1899 Map	1925 Map	Bldg. Extant
West Side of Mississippi Street Between Perry Street and Scott Street (S-N)				
96 Mississippi St.	Store; 2-Fr.	Dwelling; 2-fr.	junk storage; 1	No
96½ Mississippi St.	—	Dwelling; 2-Fr.	office; 1	No
100 Mississippi St.	Dwelling; 2-Fr.	—	*Lehigh Valley Railroad's Terminal Freight Yard and and Freight Station	No
104 Mississippi St.	Dwelling; 2-Fr.	—		
106 Mississippi St.	Dwelling; 2-Fr.	*Buffalo Scale Co.		
108 Mississippi St.	Dwelling; 2-Fr.			
110 Mississippi St.	Dwelling; 2-Fr.			
112 Mississippi St.	Dwelling; 2-Fr.			
116 Mississippi St.	Dwelling; 2-Fr.			
118 Mississippi St.	Dwelling; 2-Fr.			
East Side of Mississippi Street Between Perry Street and Scott Street (S-N)				
83-87 Mississippi St.	[side of Store, Tenements; 2]	[side of Niagara Screen Co. and Queen City Engine Co.]	Schoellkopf & Co., Leather Tanning	No
91 Mississippi St.	Store; 2-Fr.	*Schoellkopf & Co. Sheepskin Leather Mfg.		
[no #] Mississippi Street	Blacksmith, "Boat Building"; 1			
no #] Mississippi Street	Schoellkopf & Co., Sheepskin Tannery & Lining MFY.; 6-Br.			
West Side of Clark and Skinner's Canal Between Perry Street and Scott Street (S-N)				
NWC of Perry Street and Clark & Skinner's Canal	Storage; 1	[side of Niagara Screen Co. and Queen City Engine Co.]	Schoellkopf & Co., Leather Tanning	No
no #	Inlet and Dry Dock, Clark & Skinner's Canal	*Schoellkopf & Co. Sheepskin Leather Mfg.		
no #	Schoellkopf & Co., Sheepskin Tannery and Lining MFY.; 5			
Clark and Skinner's Canal Between Perry & Scott Sts. and Mississippi & Columbia Sts.	Clark and Skinner's Canal	Clark and Skinner's Canal		

Key for Historic Map Analysis Tables

1-10	Number of stories of building
Br.	Brick construction
Fr.	Frame construction
—	Does not appear on map
•	New structure at same location
Whse.	Warehouse
unk.	Unknown

Note: Stores and saloons usually occupied first floor.

3.0 Cultural Resources Investigation: Archaeology

3.1 METHODOLOGY

The purpose of the survey was to identify previously recorded cultural resources and determine the potential for locating unrecorded cultural resources within or adjacent to the proposed alternative sites. If cultural resources are present, then an assessment is made to determine the potential effect on them by the proposed construction. The archaeological cultural resources investigation included archival, documentary, and historic map research, a site visit and walkover reconnaissance, site file and literature searches, prehistoric and historic background research, a review of National and State Registers of Historic Places, cultural resource sensitivity and past disturbance evaluation at each of the alternative sites.

3.2 RESULTS AND SENSITIVITY ASSESSMENT

The results of the archival and documentary research, site file check of known cultural resources, and cartographic research has been presented in the previous section (Section 2.3). The following results are based on this research. Section 2.3 should be consulted for a detailed discussion of these results.

The general vicinity within and around the City of Buffalo was occupied during prehistoric times. However, little evidence of prehistoric sites remains within the city due to almost 200 years of construction and urban development. The extensive disturbance and earth movement has largely destroyed any potential for locating intact prehistoric resources. Subsequent commercial and industrial activities, including construction of the infrastructure, have resulted in severe and extensive disturbance of all three proposed alternative sites. Based on this extensive prior disturbance, the prehistoric sensitivity and the probability of discovering intact prehistoric cultural resources at Sites A, B, or C is very low.

The historic archaeological sensitivity of each site is discussed below.

3.2.1 Mohawk Site (Site A). As previously discussed, the Mohawk Site has been densely occupied by commercial and residential structures since the mid-nineteenth century. The Mohawk Site has a high potential for historic archaeological sensitivity in locations where buildings have been removed. For the most part, nineteenth-century structures were replaced by the construction of larger commercial buildings in the early-to-mid twentieth century. However, the area between Ellicott and Oak streets once contained dense blocks of brick and/or frame dwellings. Historic map analysis of this area concluded that there are few less disturbed locations where the possibility for encountering mid-nineteenth century dwellings is high. One location is in the northeast corner of the Mohawk Site, which is presently a parking lot.

The 1986 Sanborn Map of the Mohawk Site (A) generally reflects the present land use at this location (see Figures 10, 11 and 12). Asphalt parking areas have replaced a number of the site's historic building stock.

In general, there is a high likelihood that buried cultural deposits may be present at various locations throughout the site. Based on the archival and cartographic research, we have determined that the Mohawk Site A has a high to moderate probability of containing buried historic deposits throughout the property. Phase IB subsurface investigations are recommended at the site before any earth movement or construction is initiated.

3.2.2 Existing Convention Center Site (Site B). The 1986 Sanborn Map shows the existing Buffalo Convention Center, which occupies more than half of Site B (see Figure 13). Earlier structures within the footprint of the structure were demolished during construction of the present facility (ca. 1978). The extent of disturbance to historic resources in this area is significant. In general, the historic archaeological sensitivity is low for the existing convention center site since the construction of the existing structure probably destroyed any remains of structures once present at the current convention center site. The portion of the site located east of Pearl Street has or once had structures on it. This area is historically sensitive and Phase IB testing is recommended in locations were previous structures existed. In addition, plank and log road remains have been discovered below the current street surfaces in Buffalo (Keller et al. 1981; HAA 2000). If road construction or excavations are associated with this alternative site, the possibility of uncovering remains of a log road should be investigated before construction is these areas is initiated. The sensitivity of the complete site is low (location of existing convention center) to moderate (location of site east of Pearl Street).

3.2.3 Waterfront Site (Site C). As previously discussed, prior to the rise of major industry in this section of the city, the Waterfront Site was mostly residential with brick and frame dwellings occupied by the Italian and Irish immigrants, a school house, stores, and manufacturing complexes. None of the Waterfront Site structures documented on the Sanborn maps (1889-1925) are extant (see Figure 14). The area currently consists of an asphalt parking lot. The site was densely occupied during the 19th and early 20th centuries. Although the structures were demolished, the potential for the existence of buried deposits is high. It is unlikely that construction of the parking lot seriously impacted all previously existing buried historic resources at the site. Based on archival and map research, and general impacts associated with parking lot construction, the Waterfront Site (C) has a high potential for archaeological sensitivity. A Phase IB investigation is recommended throughout the property before any earth movement or construction is initiated.

3.3 RECOMMENDATIONS

The following recommendations for Phase IB testing at the proposed alternative sites assume that a preferred site is chosen first. A general plan has been proposed in the report. Once a site is chosen, a specific plan will be prepared including the specific characteristics of that site. While it is more cost-effective to select a preferred site and conduct the Phase IB survey, there is no limit on the number of sites that can be tested. This may, in fact, be necessary if impact to cultural resources is a factor in the selection process. In some cases, multiple sites may be tested to determine the least historically sensitive alternative. Nevertheless, we recommend that Phase IB testing be implemented after site selection, if practical, due to the cost and destructiveness of the necessary mechanical testing.

Phase IB level of reconnaissance is aimed at determining if any cultural resources are present at the proposed location and, if present, to make a preliminary assessment of the type, integrity, and potential historic significance of the cultural resource. If the cultural deposit is determined to have integrity and historic significance, then a Phase II investigation is recommended to determine the resource's eligibility for inclusion in the National and State Registers of Historic Places. If the resource is not eligible and the NYSHPO concurs, then no additional investigations are required. However, if an eligible resource will be impacted by the proposed project, then a Phase III data recovery investigation will likely be recommended to mitigate the site. Avoidance is also an option if redesign is practical.

In addition, we recommend that all final Phase IB level-of-effort testing requirements, and any subsequent testing phases, be made in consultation with NYSOPRHP before implementation.

Prehistoric Resources. The extensive prior disturbance and urban development activities at these sites (A, B, and C) has largely destroyed any potential for locating intact prehistoric resources. Based on this extensive prior disturbance, the prehistoric sensitivity and the probability of discovering intact prehistoric cultural resources at Sites A, B, or C is very low. Therefore, no specific plan is recommend to identify undiscovered prehistoric sites at Sites A, B, or C. The investigation recommended for identifying potentially buried historic period deposits will be more than adequate to identify any prehistoric site deposits.

Historic Resources. A discussion of historic archaeological sensitivity and additional Phase IB testing requirements for each site follows. As appropriate, mechanical testing will be required at each site due to the urban setting. A backhoe will be required to remove enough overburden to reach any potential deposits that may be buried six to ten feet below the present ground surface. All safety laws and regulations should be implemented during subsurface excavations.

Mohawk Site (A). In summary, there is a high to moderate likelihood that buried historic cultural deposits are present at various locations throughout the Mohawk Site (A). These resources may consist of structural remains and associated features of residential and commercial buildings, and historic middens and associated artifacts. Phase IB subsurface investigations are recommended at the site before any earth movement or construction is initiated.

As noted, mechanical testing will be required to remove the overburden and asphalt surfaces at the Mohawk Site (A). We recommend a series of backhoe trenches and a number of pits (e.g., 2-m by 2-m, or 4-m by 4-m) to determine if any intact deposits are present at the site. Any existing information, such as soil boring logs and previous trenching data (e.g., utility placement, repair) at the site also should be consulted. We also recommend trenches be placed in areas of previous foundation locations. The trench width and length will vary depending on site conditions. In general, they will be two to four meters wide and three to ten meters long.

Existing Buffalo Convention Center (B). The existing Buffalo Convention Center occupies more than half of Site B. As noted above, previous structures within the footprint of the structure were demolished during construction of the present facility (ca. 1978). The extent of disturbance to historic resources in this area is significant as a result of construction of the existing convention center. No additional Phase IB testing is recommended within the existing convention center location west of Pearl Street at Site B.

The portion of Site B east of Pearl Street once contained historic period structures. This area is historically sensitive and Phase IB testing is recommended in locations where previous structures existed. As noted, mechanical testing will be required to remove the overburden and asphalt surfaces. We recommend a series of backhoe trenches and a number of pits (e.g., 2-m by 2-m, or 4-m by 4-m) to determine if any intact deposits are present at the site. Any existing information, such as soil boring logs and previous data on trenching (e.g., utility placement, repair) at the site also should be consulted. The trench width and length will vary depending on site conditions. In general, they will be two to four meters wide and three to ten meters long.

In addition, testing should be conducted to locate potential plank and log road remains if impacts to the street go beyond approximately three feet in depth. If road construction or excavations are associated with this alternative site, the possibility of uncovering remains of a log road should be investigated before construction in these areas is initiated. In this area, we recommend a series of backhoe trenches and a number of pits (e.g., 2-m by 2-m, or 4-m by 4-m) to determine if any intact deposits are present under the street. A limited number of pits can be placed throughout the street location below the road surface to an approximate depth of six to eight feet or until natural soils are encountered. If traffic management permits, trenches can be placed perpendicular across the street at similar depths to determine if any cultural deposits are present.

The sensitivity of the complete site is low (location of existing convention center) to moderate (location of site east of Pearl Street).

Waterfront Site (Site C). As previously discussed, none of the Waterfront Site structures documented on the Sanborn maps (1889-1925) are extant. The area currently consists of an asphalt parking lot. Although the structures were demolished, the potential that buried deposits exist are high. It is unlikely that construction of the parking lot seriously impacted all previously existing buried historic resources at the site. Based on the archival and map research, and general impacts associated with parking lot construction, the Waterfront Site (C) has a high potential for archaeological sensitivity. A Phase IB investigation is recommended throughout the property before any earth movement or construction is initiated.

A Phase IB testing strategy similar to that outlined for Site B is proposed for the Waterfront Site. Mechanical testing will be required to remove the asphalt surfaces and the overburden. We recommend a series of backhoe trenches and a number of pits (e.g., 2-m by 2-m, or 4-m by 4-m) to determine if any intact deposits are present at the site. Any existing information, such as soil boring logs and previous data on trenching (e.g., utility placement, repair) data at the site also should be consulted. We further recommend trenches be placed in areas of previous foundation locations. The trench width and length will vary depending on site conditions. In general, they will be two to four meters wide and three to ten meters long.

Summary. Archival, map, and documentary research indicates that all three alternatives have some historic sensitivity. The least sensitive site is the existing Convention Center Site (B) because the existing convention center covers over half the property. Phase IB testing is only recommended on the portion of the site located on the east side of Pearl Street. Both the Mohawk Site (A) and the Waterfront Site (C) have potential for locating buried historic deposits. The Mohawk Site has moderate to high sensitivity because a portion of the site contains standing structures which will not require archaeological investigation. The Waterfront Site is designated as high sensitivity for locating buried historic resources because there are no areas that can be eliminated from investigation. The probability of locating buried deposits in open areas without current structures at each proposed alternative site is approximately the same. However, the level of archaeological investigation at each site will be contingent on the amount of open available space: the existing Convention Center Site B requiring the least amount of Phase IB subsurface testing and the Waterfront Site C requiring the most.

4.0 Architectural Reconnaissance and Inventory

4.1 METHODOLOGY

Panamerican Consultants, Inc. conducted a Phase IA reconnaissance level architectural survey for the proposed new Buffalo Convention Center sites to identify properties and/or historic districts that might be eligible for listing on the State and National Registers of Historic Places. Since a final location has not been selected for the proposed new Buffalo Convention Center, the architectural reconnaissance was limited to identification and documentation. This initial survey focused on the exteriors of structures and involved photo-documentation of all structures, as well as, general streetscapes and viewsheds of the proposed locations. Basic data gathered for each structure included location, function, and age of construction. Other pertinent information collected in the field focused on building materials, architectural features and details, visible exterior modifications, integrity, associated outbuildings and landscape features.

A check of the files of the New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP) identified National Register of Historic Places (NRHP) Listed/Eligible properties and previously inventoried properties within and/or adjacent to the three proposed locations for the new Buffalo Convention Center. In addition to the site file check, Ms. Claire Ross of the Field Services Bureau of the New York State Historic Preservation Office (NY SHPO) supplied additional information and comments regarding resources within and or adjacent to the proposed locations for the new convention center. Ms. Ross accompanied Ms. Longiaru for a tour of the proposed convention center locations on June 1, 2001.

Mr. Gregory Bernas, Assistant Environmental Coordinator, Division of Planning, Department of Community Development, City of Buffalo, also was contacted. Relevant NYS OPRHP Building/Structure Inventory Forms, previous studies and maps were reviewed at the Buffalo Division of Planning Office. The Buffalo Division of Planning developed a color-coding scheme in the late1970s, based on criteria developed by the NYS ORPHP, which classified the city's building stock by historic value. The results were later compiled in a directory on file at the Buffalo Division of Planning Office. Though dated, the designation of historic value for buildings within the proposed convention center locations supplemented the present architectural inventory and NRHP eligibility assessments.

The NYS OPRHP Building/Structure Inventory Forms were invaluable to the study for they provided photographs of many of the properties as they appeared when the forms were completed some 20 years ago. These photographs document the condition and integrity of the buildings as captured in the late twentieth century and, when compared with recent photographs, a significant number of the facades of buildings have been modified while others reveal only minor discernible alterations. Negatives

and prints of the circa 1978-1980 photographs that accompany the forms are housed at the Buffalo Division of Planning office.

Additional archival research was required due to limited historic background information supplied on some of the OPRHP forms. Resources and materials of the Special Collections Room, Central Branch of the Buffalo and Erie County Library and of the Buffalo and Erie County Historical Society Library were consulted. Buffalo city directories, scrapbooks, historic photographs and Sanborn *Fire Insurance Maps* (ca. 1889, 1899 and 1925) were examined for the history of commercial interests within the three proposed locations.

National Register Criteria. For a cultural resource to be considered for eligibility to the NRHP it must be evaluated within its historic context and demonstrated to be significant for one or more of the four Criteria of Evaluation (36 CFR 60) as outlined in the National Park Service publication: *Guidelines for Local Surveys: A Basis for Preservation Planning* (National Register Bulletin 15). Those properties that appeared to exhibit the appropriate qualities required for eligibility to the National Register were identified in the field.

Criterion A: (Event) Properties that are associated with events that have made a significant contribution to the broad patterns of our history; or

Criterion B: (Person) Properties that are associated with the lives of persons significant in our past; or

Criterion C: (Design/Construction) Properties that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

Criterion D: (Information Potential) Properties that have yielded, or may be likely to yield, information important in prehistory or history (NPS Bulletin 15, referencing 36 CFR Part 60).

The cultural property (e.g., archaeological site, historic structure or landscape) also must retain the historic integrity of those features necessary to convey its significance. The information likely to be recovered from the cultural resource must confirm, refute, or supplement, in an important way, existing information. It is not eligible if it cannot be related to a particular time period or cultural group and, thereby, lacks any historic context to evaluate the importance of the information to be collected (NPS Bulletin 15, pp. 3, 22).

Integrity is defined as *the ability of a property to convey its significance* (NPS Bulletin 15, p. 44). To merit eligibility a property must be significant and must also

have integrity. Seven aspects or qualities of integrity that are recognized by the National Register are location, design, setting, materials, workmanship, feeling, and association (for more detailed description of each aspect see NPS Bulletin 15, pp. 44-45).

4.2 RESULTS

The objective of the present Phase IA architectural reconnaissance level survey was to document and identify structures within and/or adjacent to the proposed new Buffalo Convention Center Sites (A, B, and C). Construction of a new 400,000 to 425,000 gross square foot facility in Buffalo's central business district will not only effect the city's existing historic building stock, but the city's urban character as well. A total of 53 structure were identified within the proposed locations for the new convention center. This study concludes that seven properties are potentially eligible for inclusion in the NRHP. One structure, 504 Washington Street, is potentially eligible as a contributing component to the existing NRE 500 Block Historic District. All of the recommended properties are located in the Mohawk Site (A).

The results of the architectural inventory of each proposed alternative for the new Buffalo Convention Center are presented as a unique subsection. For each location, there is a discussion of the site followed by two tables, which include: 1) an inventory of buildings within the proposed site, and 2) previously inventoried structures within the viewshed of the proposed location. The inventory tables are organized in alphabetical order by street name and by sequential street address order, which is from south to north. A photographic catalog for each of the proposed new Buffalo Convention Center alternatives is included in a separate appendix (Appendices A through C). A location map with keyed photograph angles and numbers accompany each appendix.

4.2.1 Mohawk Site (Site A). The Mohawk Site is an 11-acre site bound by Main Street to the west, Oak Street to the east, East Huron Street to the north and Broadway to the south. Two block sections of Washington, Ellicott, and Blossom Streets, south-north thoroughfares, are entirely contained within the Mohawk Site. West-east streets comprised within the site include two blocks of East Mohawk Place and all of Hersee Alley. The Mohawk Site consists of 46 commercial, retail and light industrial buildings that range from one-part commercial blocks (338-340 Ellicott Street) to multi-storied, two-part vertical blocks (500 Washington Street). However, most of the building stock consists of three-story, two-part commercial blocks (500 Block Historic District). The site also contains a mid-twentieth century parking ramp. Older commercial buildings dating from the mid-to-late nineteenth century are located on the west side of Main Street and along the south side of East Genesee Street. The northwest quarter of the Mohawk Site contains the largest concentration of buildings while the remainder of the site consists of intermittent commercial rows and isolated buildings punctuated by asphalt parking lots. Since the 1960s, approximately 27 buildings in the limits of the Mohawk Site have been demolished.

Historic maps from the mid-nineteenth century through the early-twentieth century document the urban development of this section of Buffalo's Central Business District. Early in the city's history, the Mohawk Site encompassed modest residential and commercial buildings. Through the course of the nineteenth century, the Mohawk Site gradually transformed into a largely commercial area with the emergence of more substantial commercial buildings and factories for light manufacturing. By the late nineteenth century, the Mohawk Site had a considerable number of densely occupied blocks of commercial buildings that included hotels, theaters, a variety of specialty stores, saloons, liveries, furniture manufacturers and warehouses, a manufacturer of butchering tools, a carriage factory, a bank, a printers shop and a Turkish bathhouse. Despite the swift rise of commercial enterprise in the city, a small number of detached, two-story dwellings persisted into the early twentieth century.

Originally, many of the blocks bounded by primary thoroughfares in the city were bisected by alleys or narrow streets. Buildings dating from the mid-to-late nineteenth century conformed to Joseph Ellicott's street layout with frontages on the primary street and rear elevations along the secondary streets. Presently, Blossom Street and Hersee Alley are the only surviving examples of a divided block within the three proposed new Buffalo Convention Center locations. The former retains sections of its original Medina sandstone curbing. By the early twentieth century, alleys were eliminated or partially absorbed by the construction of large commercial buildings, that frequently occupied multiple lots, which extended through the entire block.

As noted, the remaining nineteenth century building stock on the Mohawk Site is centered on the northwest quarter of the proposed site. In some cases, many of the original features and stylistic details of older buildings have been substantially altered or obscured by incompatible coverings. Most of the site's historic commercial storefronts have been modified by subsequent modernizations that reflect later styles and materials. Observed changes to historic storefronts in the Mohawk Site include the removal or obscuring of distinguishing features such as recessed central entries, doors, display windows, transoms, lighting fixtures, original signs and storefront cornices. The most significant alterations to the upper levels involved either the replacement or alteration of original fenestration. Despite visible modifications, there are vestiges of the earlier building fabric as evidenced by existing features such as original sash and surrounds, cornices, cast-iron store fronts and other cast-iron architectural elements. Removal of inappropriate, non-historic cladding and later alterations might reveal the historic character of a building.

During the mid-to-late nineteenth century, vernacular and Italianate-style commercial buildings were constructed in Buffalo with affordable, pre-fabricated cast iron elements. Builders and architects ordered architectural cast-iron by catalogs from local foundries. The three largest manufacturers of cast iron in Buffalo were Eagle Iron Works (founded in 1853), G.W. Tifft, Sons & Company (founded as the Buffalo Steam Engine Works in 1841), and the Washington Iron Works Company (founded 1857) (Longiaru 1999:16, 28 44). Plaques identifying the latter appear on the cast-iron

storefronts of 504 Washington Street and 348 Ellicott Street. Cast-iron designs resembling Eagle Iron Works window cap pattern Style No. 17 are found on 517 Washington Street. Eagle Iron Works more than likely supplied additional cast-iron details and storefronts for buildings on Main Street and East Genesee Street. The acceptance and utilization of cast-iron storefronts and details greatly affected the city's commercial landscape by creating a sense of visual uniformity.

In the central business district of Buffalo, early vernacular and Italianate-style commercial buildings were replaced by Second Empire and Queen Anne-style buildings in the late nineteenth century. The only surviving example of a Second Empire-style commercial building in the Mohawk Site is located at 36 Broadway. Though popular in the late nineteenth century, there are few examples of Second Empire commercial buildings in downtown Buffalo. At one time, the city hosted a number of impressive examples of the style including the former Buffalo German Insurance Building that stood on the Main Street and Lafayette Square, close to both the Mohawk and the Existing Convention Center sites. Most intact examples of the style are residences located outside of the city's central business district.

As with the Second Empire style, extant Queen Anne commercial buildings are poorly represented in the city's central business district. This style was largely reserved for Buffalo's residences. The Ferguson Electric Building at 321-323 Ellicott Street is an excellent example of a Queen Anne commercial building with its prominent two-story oriel and accentuated cornice that includes brick corbeling and dentils. Unfortunately, the building's original storefront has been altered. In the first decade of the twentieth century, a nascent electric construction and supply industry emerged along Washington and Ellicott Streets. Other industries within this corridor of the city included furniture, printing and plumbing. The appearance of these industries coincided with the construction of large loft buildings for storage and light manufacturing. Three early reinforced concrete frame commercial buildings are located at 501 Washington Street, 510 Washington Street and 180 Oak Street. The Washington Building (also known as the Holling Press Building at 500 Washington Street) is a ten-story factory building that is associated with the twentieth century printing industry in Buffalo. Intact, historic wall signs with the company's name distinguish the building's roofline.

Many retail buildings constructed in the early twentieth century in the city's central business district featured Neo-Classical motifs. The facades of 523 Main Street and 529 Washington Street show the applicability of the style through a range of detailing and materials. Each facade has a glazed, white terra cotta veneer with its own distinctive entablature. Decorative festoons embellish the panels of 523 Main Street while the frieze of 529 Main Street features circular motifs. There are a number of exceptional examples of commercial buildings in downtown Buffalo with terra cotta veneers. Perhaps the most well recognized example is the Niagara Mohawk Building, which looms over the Mohawk Site.

By the 1920s, the Art Deco style dominated the city's civic and municipal buildings. The Mohawk Site contains a largely intact, good example of a late Art Deco commercial building at 11 Genesee Street (aka, Buffalo Urban League Building). The original beveled block glass of the main window of the first floor (in the bay adjacent to the main entrance), smooth polished marble panels, the original fenestration of the upper levels and the stylized ornament of the capitals pilasters remain intact.

The eastern boundary of the Mohawk Site is adjacent to the Oak-Michigan Industrial Corridor. Oak Street serves as the western limits of this two-block wide and eleven-block long industrial corridor that lies just east of the city's central business district. In the 1960s, the New York Department of Transportation cleared much of this area in anticipation of the construction of a depressed highway along Oak and Elm Streets. By 1970, the project was cut back to include a pair of surface arterial streets. As proposed in 1981, Phase IIB of the Oak-Michigan Industrial Corridor Urban Renewal Plan called for the acquisition of 35 parcels and 16 structures. The purpose of the project was to provide new facilities for high-technology, light manufacturing and downtown service industries. These modern facilities are within the viewshed of the Mohawk Site.

Several National Register Listed and/or Eligible properties are within the immediate viewshed of the Mohawk Site. Two National Register Listed properties, the Buffalo Savings Bank (ca. 1900-1901) and the Niagara Mohawk Building (ca. 1912) lie immediately north of the northern limits of the Mohawk Site. The L. L. Berger Building, a NRE property, is located on the west side of Main Street directly across from the Mohawk Site. The southern boundaries of the Mohawk Site are within the immediate viewshed of Lafayette Square, which includes the Soldiers and Sailors Monument (ca. 1882). Lafayette Square is considered the second most important public space in downtown Buffalo (Buffalo Arch. Guidebook Co. 1981:88). NRL/NRE buildings surrounding the square that are within the viewshed of the southern limits of the Mohawk Site include: the Lafayette Hotel (ca. 1904), the Rand Building (ca. 1929), the Liberty Building and the Brisbane Building (ca. 1895). Also of note, the Mowhawk Site is one block south of the southern limits of the Theater Historic Preservation District.

4.2.1.1 National Register Listed or Eligible Properties: Mohawk Site (Site A) 500 Block Historic District. In 1984, buildings in the 500 Block of Main Street were determined not eligible in a Consensus Determination (CD) review. As a result of subsequent facade renovations, sections of the 500 Main Street block were improved. In 1992, the 500 Block was reevaluated by NYS OPRHP and the following buildings were determined eligible as contributing components of the 500 Block Historic District: 515-517, 523, 525, 529, 535 and 537 Main Street (Todd 1992). These contributing buildings "appear to comprise an architecturally significant concentration of late nineteenth to early twentieth century commercial architecture in Buffalo" (Todd 1992).

Three buildings on Main Street remained ineligible as part of the 500 Block Historic District—495, 501, 505 and 521 Main Street. Due to extensive alterations to

properties on Genesee Street, between Main and Washington Streets, the following buildings also remained ineligible: 5-7, 9 and 11 Genesee Street, and 5 East Huron Street (Howard's Shoes). At that time, insufficient information was provided for evaluation of the main facade of 11 Genesee Street (Buffalo Urban League), while its Washington Street elevation was determined not significant. The Art Deco-style commercial building at 11 Genesee Street displays integrity and warrants reevaluation as a potential contributing component of the 500 Block Historic District. The last building considered under the 1992 review of the 500 Block included the seven-story commercial building at 510 Washington Street, it was determined not significant.

4.2.1.2 Potentially National Register Eligible (NRE) Properties: Mohawk Site (Site A). As a result of the present study, seven properties on the Mohawk Site were identified as potentially National Register Eligible. No historic districts were identified as potentially National Register Eligible in the Mohawk Site study area, though one property is recommended as a potential contributing component to the existing NRE 500 Block Historic District.

6 Blossom Street (or 317 Ellicott Street) (Unique Site Number [USN] 02940. 003119). This two-story, Italianate-style outbuilding is potentially eligible (Criteria A and C) as the only surviving example of a late nineteenth century stable in the central business district of the City of Buffalo. The stable is associated with nineteenth century transportation when horse drawn carriages were a popular method of transport. During the nineteenth century, the area east of Ellicott Street was comprised of mainly brick dwellings with either stables or smaller carriage houses that were accessed via Hersee Alley (originally Koon's Alley) and Blossom Street. Two private residences (317 and 319 Ellicott Street) originally occupied the same lot as the stable. The first owners were identified as T. Irlbacher and Davis (NYSOPRHP Inventory Form 1980).

The integrity of the exterior of 6 Blossom Street is fair due to significant alterations to the windows and main entry bay. The original sash of the round arch windows have been removed and replaced with brick. Only a few of the original limestone lintels remain. The entry door in the left bay also has been filled in with brick and the main service bay has been modified. Despite these visible alterations, the stable still evokes the distinctive characteristics of its type and period while retaining its location, design, setting, workmanship, feeling, and association. Presently, the building is part of the Ferguson Electric complex.

36 Broadway (USN 02940.003122). This late nineteenth century Second Empire-style commercial building is potentially eligible for the National Register (under Criteria B and C) as a surviving example of its type and for its association with Charles Burchfield (1893-1967), a noted artist who worked for a local wallpaper company, H. Birge & Sons. Known as the Buehl's Block, Burchfield captured the building in his ca. 1930 painting *Rainy Night* which may be viewed in the Special Collections Room of the Buffalo and Erie County Library, which is directly across the street from 36 Broadway. Burchfield's work provides a glimpse of the early twentieth century streetscape.

The Hotel Ireland (later Hotel Claridge) originally occupied the upper levels of the Buehl's Block. It was one of many modest sized hotels that existed before the rise of large hotels after the turn of the nineteenth century (e.g., Bethune, Bethune and Fuchs ca. 1904 Hotel Lafayette at 314 Washington Street). The Buehl's block is the only surviving example of its kind remaining in the Mohawk Site. Popular in the late nineteenth century, there are few examples of Second Empire commercial buildings in downtown Buffalo. At one time, the city hosted a number of impressive examples of the style including the former Buffalo German Insurance Building that stood on the Main Street and Lafayette Square, less than two blocks west of the 36 Broadway. Most intact examples of the style are residences located outside of the city's central business district.

During the last 25 years, 36 Broadway has undergone extensive alterations including the inappropriate modification of its most distinguishing Second Empire feature the mansard roof. Presently, the roof has non-historic cladding and it is unknown if the building's original slate roofing tiles exist beneath the modern exterior. The first floor storefront has been significantly altered and the windows of the upper levels have been replaced. In spite of considerable modifications, Buehl's Block still features flat hood moldings on the second floor, segmental arched windows with relieving arches on the third floor, brick corbeling below at the cornice and its distinctive roofline with dormers.

25 East Huron Street. The Burns Building is potentially National Register eligible as a good, representative example of a largely intact early twentieth century (ca. 1919) loft building (under Criterion C). This six-story, steel-framed building features a high degree of integrity with its facade retaining many of architectural details including a mostly intact original storefront. The storefront in the right bay has retained its prism glass transom windows, however, its display windows are currently boarded up. A wooden sign obscures the transom area of the left storefront so its existing condition is not known. The main central entrance for the upper levels has been altered. The narrow central bay has flanking piers and a six, three-over-three double-hung sash windows with wooden surrounds. Windows of the end bays are grouped in four and consist of one-over-one double-hung sash with wooden surrounds and continuous stone lintels. A paneled brick spandrel accents the second floor while the rest of the floors are divided by plain brick spandrels. The facade piers are embellished triangular shaped motifs and the cornice features brick corbeling accentuated by decorative round stones with guttae.

321 Ellicott Street. The main building of the Ferguson Electric complex is potentially National Register eligible (under Criteria A and C) as a good representative example of a late nineteenth century (ca. 1892) commercial building and for its association with the electric industry in the City of Buffalo. This three-story commercial building features largely intact Queen Anne detailing on its upper floors though its original storefront has been altered.

Prior to establishing his own company, Whitworth Ferguson was a vice president and chief engineer of Buffalo's major electrical contracting company (Bisco 1986:93). Ferguson opened his electrical contracting company in August 1935 in a small office on Oak Street. Presently, Ferguson Electric is Western New York's largest electrical construction firm. In addition to their offices and warehouses on Ellicott Street, they have a location in the City of Niagara Falls. The company is best known for harnessing the power of Niagara Falls for generating hydroelectricity in the Niagara power project of 1956. Ferguson Electric also is associated with many other local landmarks such as the 40-story Marine Midland Center with the area's largest electric snow melting facility, the Amherst Campus of the State University of New York at Buffalo, local plants of General Motors and Ford, and Buffalo City Hall (Bisco 1986:93).

465 Washington Street (USN 02940.003047). The ca. 1909-1911 Sinclair Building (a.k.a. Remington-Rand Building) at 465 Washington Street is potentially National Register eligible (under Criterion C) as a good representative example of a largely intact early twentieth century commercial building and for its association with one of the city's leading architectural firms of the period, Esenwein and Johnson. The firm is best known for their work at the 1901 Pan American Exposition, the Niagara Mohawk Building (formerly the General Electric Building), Lafayette High School, and a number of Buffalo residences.

Presently, 465 Washington Street is associated with the University at Buffalo Education Opportunity Center. This six-story, steel-framed commercial building has a three-bay wide facade and its East Mohawk elevation consists of eight bays. The original entry has been altered and the first floor windows have been replaced. The upper level windows are grouped in four and feature one-over-one double-hung sash with wooden surrounds separated by pilasters. A stone lintel accents each opening. The cornice features dentils and the capitals of the engaged piers feature a slender, stylized motif.

501 Washington Street. The ca. 1923-1924 George Washington Building (Holling Press Building) is potentially National Register eligible (under Criteria A and C) as an excellent example of an early twentieth century loft with a reinforced concrete frame and for its association with the city's printing industry. The Washington Building is architecturally distinguished by its finely articulated brick masonry facade. Designed by architects Hudson and Hudson, the architectural features of their decorative four-bay-wide facade conveys the massiveness and form of this ten-story loft space. The first two levels of the building have been altered, while the third floor retains its original sash and cornice with dentils. Floors 4 through 9 feature brick pilaster strips and paired multi-paned lights. The tenth floor has a false balustrade and is topped by an ornate pediment with a round window in the tympanum, squared columns with turns and scroll brackets.

The Washington Building also is historically important for its association with the printing industry in Buffalo. Since its construction, this ten-story commercial building

has been occupied by various businesses, though it is primarily associated with the Holling Press Company, one of the premiere printing establishments in the city for most of the twentieth century. In 1955, the company occupied only five stories of the large loft building and planned for a $100,000 expansion that included the installation of two offset presses and new photographic offset equipment (Kazarian 1955). At that time, Holling Press planned to takeover two more floors of the Washington Building for its photography department and plate section, which operated from 25 East Huron Street. In the mid-twentieth century, the company operated with about 100 employees. Even though the Holling Press Company ceased operations in 1999, historic wall signs at the roofline still bear the company's name.

504 Washington Street (USN 00940.003054). This late nineteenth century Italianate-style commercial building is potentially eligible as a contributing component of the National Register Eligible 500 Block Historic District. Presently, the contributing properties of the National Register Eligible 500 Block Historic District are confined to the west side of Main Street, however, 504 Washington Street extends through the lot with frontage at 529 Main Street, a contributing component of the district. If the boundaries of the 500 Block Historic District were shifted to include 504 Washington Street, the cohesiveness of the commercial block would not be detracted by the addition of this adjacent late nineteenth commercial building.

Table 5 Architectural Inventory of Mohawk Site (A).

Address	Unique Site Number	Form	National Register Eligible/Listed	Comments
2 Blossom Street	Not previously inventoried	—	—	Does not meet NRHP criteria of eligibility.
6 Blossom Street (Note: OPRHP inventory form lists bldg. as *317 Ellicott Street)*	02940.003119	Yes	No Determination	Potentially eligible as a surviving example of a late nineteenth century, Italianate-style stable in the downtown central business district.
36 Broadway	02940.003116	Yes	No Determination	Potentially eligible as a representative example of a Second Empire-style commercial building.
42 Broadway	Not previously inventoried	—	—	Does not meet NRHP criteria of eligibility.
50 Broadway	02940.003118	Yes	No Determination	Does not meet NRHP criteria of eligibility.
66-70 Broadway	02940.003120	Yes	No Determination	DEMOLISHED.
5 East Huron Street (Howard's Famous Shoes)	02940.008265	No	Not Eligible	Determined not eligible as part of 500 Block Historic District; Washington Street elevation considered not significant (1/22/1992).
25 East Huron Street (Burns Building)	02940.003059	Yes	No Determination	Potentially eligible as good, representative example of a largely intact, early 20th century commercial building.
45-47 East Mohawk Street	02940.003048	Yes	No Determination	Does not meet NRHP criteria of eligibility.
285 Ellicott Street	02940.003117	Yes	No Determination	Does not meet NRHP criteria of eligibility.
288-290 Ellicott Street	02940.008252	Yes	No Determination	Does not meet NRHP criteria of eligibility.
296 Ellicott Street–What is this an empty lot?	Not previously inventoried	No	—	Does not meet NRHP criteria of eligibility.
301 Ellicott Street (Emulso Corporation)	Not previously inventoried	No	—	Does not meet NRHP criteria of eligibility.
300-302 Ellicott Street/51 East Mohawk	02940.003049	Yes	No Determination	Does not meet NRHP criteria of eligibility.

Address	Unique Site Number	Form	National Register Eligible/Listed	Comments
321 Ellicott Street (Ferguson Electric)	Not previously inventoried	Yes	No Determination	Potentially eligible as a representative example of an early 20th century commercial building and its association with the electrical industry in the City of Buffalo.
332 Ellicott Street (Buffalo Alarm Office, Buffalo Fire Department)	Not previously inventoried.	No	—	Does not meet NRHP criteria of eligibility. Lot once occupied by a previously inventoried building (USN 02940.008276).
337 Ellicott Street	Not previously inventoried	No	—	Does not meet NRHP criteria of eligibility.
338-340 Ellicott Street	02940.008275	No	No Determination	Does not meet NRHP criteria of eligibility.
350 Ellicott Street	02940.008274	No	No Determination	Does not meet NRHP criteria of eligibility.
5 Genesee Street	No Inventory	No	Not Eligible	Determined not eligible as part of 500 Block HD (1/22/1992)
7 Genesee Street	No Inventory	No	Not Eligible	Determined not eligible as part of 500 Block HD (1/22/1992)
9 Genesee Street	No Inventory	No	Not Eligible	Determined not eligible as part o 500 Block HD (1/22/1992)
11 Genesee Street	No Inventory	No	Not Eligible	Determined not eligible as part of 500 Block HD; Washington Street elevation considered not significant (1/22/1992)
495 Main Street	02940.008253	No	Not Eligible	Determined not eligible as part of 500 Block HD (1/22/1992).
501 Main Street	02940.016797	No	Not Eligible	Determined not eligible as part of 500 Block HD (1/22/1992)
503 Main Street	02940.008254	No	Not Eligible.	Determined not eligible as part of 500 Block HD (1/22/1992)
505 Main Street/ 505-509 Main Street	02940.016798 02940.008255	No	Not Eligible	Determined not eligible as part of 500 Block HD (1/22/1992)

Address	Unique Site Number	Form	National Register Eligible/Listed	Comments
511 Main Street	02940.008256	No	—	Presently, there is an empty lot at this address.
515-517 Main Street	02940.008257	No	Eligible	Contributing component of 500 Block HD(1/22/1992)
521 Main Street	02940.008256	No	Not Eligible	Determined not eligible as part of 500 Block HD (1/22/1992)
523 Main Street	02940.008259	No	Eligible	Contributing component of 500 Block HD (1/22/1992)
525 Main Street/ Rear elevation located at 502 Washington	02940.003050	Yes	Eligible-500 Block HD	Contributing component of 500 Block HD (1/22/1992)
529 Main Street	02940.016796	No	Eligible-500 Block HD	Contributing component of 500 Block HD (1/22/1992)
531-533 Main Street	02940.003051	No	Eligible-500 Block HD	Contributing component of 500 Block HD (1/22/1992)
537 Main Street	02940.003052	Yes	Eligible-500 Block HD	Contributing component of 500 Block HD (1/22/1992)
180 Oak Street (Note: OPRHP inventory form lists bldg. as 15-29 Blossom St.)	02940.003122	Yes	No Determination	Does not meet NRHP criteria of eligibility.
194 Oak Street	02940.003121	Yes	—	DEMOLISHED.
198 Oak Street (Tony Russo's Auto)	02940.003123	Yes	No Determination	Does not meet NRHP criteria of eligibility.
200 Oak Street (Tony Russo's Auto)	02940.003124	Yes	No Determination	Does not meet NRHP criteria of eligibility.
465 Washington Street (formerly Sinclair/ Remington Rand Building)	02940.003047	Yes	No Determination	Potential National Register Eligible as early 20th Century office building designed by Esenwein and Johnson.
477 Washington Street	02940.008270	No	No Determination	Does not meet NRHP criteria of eligibility.
498 Washington Street	02940.003055	Yes	No Determination	DEMOLISHED
499 Washington Street	02940.003056	Yes	No Determination	Does not meet NRHP criteria of eligibility.
500 Washington Street	02940.008267	Yes	No Determination	Does not meet NRHP criteria of eligibility.

Address	Unique Site Number	Form	National Register Eligible/Listed	Comments
501Washington Street	02940.003057	Yes	No Determination	Potentially National Register Eligible as an excellent example of a reinforced concrete frame loft building and for its association with the printing industry in Buffalo.
504 Washington Street	02940.003054	Yes	No Determination	This late nineteenth century Italianate-style commercial building might be potentially National Register Eligible as a contributing component of the 500 Block HD if the boundaries of the district were to be expanded.
510 Washington Street*	02940.003053	Yes	Not Eligible	Determined not eligible as part of 500 Block Hist. Dist. (1/22/1992)
517 Washington Street	02940.008271	—	—	Does not meet NRHP criteria of eligibility.
519 Washington Street	02940.008272	—	—	Does not meet NRHP criteria of eligibility.
525 Washington Street	02940.00308	Yes	No Determination	Does not meet NRHP criteria of eligibility.

Key for architectural inventory tables
HD Historic District

Table 6 Previously inventoried structures within Mohawk Site (A) viewshed

Address	Unique Site Number	Form	National Register Eligible/Listed	Comments
77 Broadway	02940.017789	No	Not Eligible	—
85 Broadway (Buffalo City Mission)	02940.005903	Yes	No Determination.	—
93 Broadway	02940.003115	Yes	No Determination	—
120-124 Broadway	02940.003128	Yes	No Determination	—
125 Broadway	02940.003110	Yes	No Determination	—
127 Broadway	02940.003111	Yes	No Determination	—
130 Broadway	02940.003129	Yes	No Determination	—
132 Broadway	02940.003130	Yes	No Determination	—
138 Broadway	02940.003125	Yes	No Determination	—
72-76 East Huron Street	02940.3134	Yes	No Determination	—
45 East Mohawk Street	02940.003048	Yes	No Determination	—
365 Ellicott Street	02940.003119	Yes	No Determination	—
367-369 Ellicott Street	02940.003135	Yes	No Determination	
371-31 Ellicott Street	02940.006018	Yes	No Determination	
1 Genesee Street	02940.003064	Yes	No Determination	
17-29 Genesee Street (Victor Building)	02940.003082	Yes	—	DEMOLISHED
20 Genesee Street	02940.008227	No	Non-Contributing	—
20 Genesee Street Niagara Sq. Parking Ramp	02940.006421	No	Non Contributing	—
85-89 Genesee Street (Photographer studio)	02940.003136	Yes	No Determination	—
91-95 Genesee Street	02940.003137	Yes	No Determination	—
Lafayette Square Buffalo & Erie County Public Library	02940.0016761	Yes	Not Eligible	—
Lafayette Square Soldier's and Sailor's Monument	02940.005955	Yes	No Determination	—
10 Lafayette Square	02940.008251		No Determination	
14 Lafayette Square (Rand Building)	02940.003021	Yes	No Determination	—

Address	Unique Site Number	Form	National Register Eligible/Listed	Comments
474 Main Street	09240.003006	Yes	No Determination	—
475 Main Street	09240.008249	No	No Determination	—
478 Main Street	09240.003005	Yes	No Determination	—
483 Main Street	09240.008248	Yes	No Determination	—
485 Main Street	09240.003019	Yes	No Determination	
495 Main Street (Burger King)	02940.008253	No	Not Eligible -- 500 Block HD	—
496 Main Street	02940.003018	Yes	No Determination	—
500-518 Main Street (L.L. Berger Bldg.)	02940.003017	Yes	99NR1507/ OOPR1192	—
505-509 Main Street	02940.008255	No	Not Eligible -- 500 Block HD	—
510 Main Street	02940.003016	Yes	Listed 99NR1507	—
532 Main Street		No	No Determination	—
534 Main Street (DE Morgan Building)	02940.003063		No Determination	DEMOLISHED
535 Main Street	02940.008250		Eligible -- 500 Block HD	—
537 Main Street	02940.003052	Yes	Eligible -- 500 Block HD	—
544-48 Main Street (Grant Building)	02940.3069	Yes	No Determination.	—
545 Main Street (Buffalo Savings Bank)	02940.003081	Yes	Listed–Individ.	—
546 Main Street (Grant Building)	02940.003062	Yes	—	DEMOLISHED
564 Main Street	02940.003065	Yes	—	DEMOLISHED
565 Main Street	02940.003079	Yes	—	DEMOLISHED
391 Washington Street (Lafayette Hotel)	02940.002994	Yes	Eligible #99PR4361 1/5/2000	—
466 Washington Street	02940.008250	Yes	No Determination	—
525 Washington Street (Niagara Mohawk Bldg.)	02940.003058	Yes	Eligible July 20, 1999	—

Address	Unique Site Number	Form	National Register Eligible/Listed	Comments
554 Washington Street	02940.003072	Yes	No Determination	—
566 Washington Street	02940.003070	No	No Determination	—
574 Washington Street	02940.003070	Yes		—

Key for architectural inventory tables
HD Historic District

4.2.2 Existing Buffalo Convention Center Site (Site B). None of the seven commercial buildings identified on the proposed existing Buffalo Convention Center Site (B) are potentially eligible for the National Register. This location mainly is comprised of the present 180,000 square foot Buffalo Convention Center (ca. 1978), which occupies almost the entire square block bound by Franklin and Pearl Streets to the west and east, and Court and West Mohawk Streets to the south and north. Situated on the west side of Main Street, this alternative lies east of the city's major government buildings.

For the construction of the ca. 1978 convention center, the historic building stock of this section of the city was significantly impacted by the demolition of six buildings and by the closing of sections of Genesee Street and West Mohawk Street, which were absorbed by the new facility. Genesee Street is one of the original radial streets as designed by Joseph Ellicott. Prior to the construction of the convention center, the block was divided by Omaha Alley (west-east) and Wiggins Alley (south-north), M.E. Beebe's Tucker Building at 37-39 Court Street, and a Second Empire-style town house were among the nineteenth century buildings demolished. Constructed in 1887, the Tucker Building originally housed Tucker and Butts Photographic Supply store. This seven-story commercial building was unique for its ornamental, full cast-iron front, and its large Moorish style window openings the top floor. The four-story Edwards Building (ca. 1926) at 155 Franklin Street was demolished also. Formerly Edward's Department Store, the building later housed offices of the Internal Revenue Office.

During the mid-to late nineteenth century, the existing Buffalo Convention Center Site shared a similar building stock as that of the Mohawk Site with its mix of vernacular commercial buildings and dwellings. However, buildings constructed on the existing Buffalo Convention Center Site in the early twentieth century were distinguished from those of the Mohawk Site by virtue of their location and use. This section of the city became the retail shopping district due to its immediate proximity to the offices of the financial and government districts of the city. Large department stores, such as Hens and Kelly, LL. Berger, and Edward's, replaced smaller commercial buildings on the west side of Main Street. These multi-storied retail houses extended their operations with either additional frontage or ancillary storage warehouses on Pearl Street.

Established in 1892, Hens & Kelly was the most notable retail house in the block of Main Street between Court and West Mohawk Streets. The original Hens & Kelly department store occupied a section of the Miller Block (only 60 ft x 18 ft), where they were engaged in apparel for men, women and children (*Commercial Advertiser* 1922). Within five weeks, they had doubled in size by acquiring the adjacent storefront. Hens & Kelly unified the facade of the four-story brick building with the addition of a cast-iron storefront. In 1903, they purchased all of the lots extending to Pearl Street and, in 1922, the company hired Bley and Lyman to design a new department store. Work began on Pearl Street so the existing store could remain in operation. Once the rear of the new building was completed, departments from the old store moved into the new edifice and demolition commenced on Main Street. Completed in 1924, Hens & Kelly was the first department store in Buffalo to install an escalator between the first and second store (*Commercial Advertiser* 1922). Unfortunately, the original exterior of the building has been significantly altered with the removal of its original two-story storefront with its central arched entrance. Almost all of the first two-story windows have been replaced while all of the upper level windows have new replacement windows. An original entrance and a display window remains on the Pearl Street corner of the building. Twin Fair bought out Hens & Kelly in 1978 and three years later the company closed their Buffalo stores (Van Ness 1999:16). The structure presently serves as an office building for Erie County Department of Social Services.

Other buildings within the site were also altered in the late twentieth century. The original storefronts of the Beaux Art-style commercial building at 474 Main Street were modified in the 1960s and subsequently altered again. The upper two stories of the building still display its original glazed white terra cotta veneer and Beaux Arts detailing. The adjacent building at 466 Main Street (formerly Eisner's) was an excellent example of an Art Deco commercial building that was completely altered in the mid-1980s for the construction of the Courtyard Mall. To accommodate the mall, the facade was stripped and its interior was gutted. The other two commercial buildings fronting Main Street (550-552 and 456 Main Street) were once three-story brick buildings. The Pearl Street elevation of 550-552 Main Street (Rite-Aid) is a four-story brick commercial building (ca. 1890) that displays considerable alterations. A vacant, eight-story steel frame commercial building (ca. 1905) at 265-267 Pearl Street looms over the existing Convention Center. During the mid-twentieth century the building's two storefronts were modified. In poor to fair condition, the storefronts reveal a variety of materials and evidence of subsequent modifications. Presently, all of the upper level windows have been covered with particle board. The most intact architectural feature of the facade is its heavy, projecting cornice accented with dentils and modillions.

The existing Convention Center is adjacent to the National Register-listed YMCA Building (ca. 1902). Flanking the southern periphery of the convention center are Bley and Lyman's twelve-story, National Register-eligible Walbridge Building (ca. 1924) at 45 Court Street and the Art Deco-style building at 17 Court Street. The National Register-eligible L.L. Berger Building (500-518 Main Street) is close by, immediately north of the proposed limits for Site B. Due to potential and immediate impacts, the Berger Building is included in the present study.

Since the existing convention center occupies a prominent block in downtown Buffalo, it affords views of some of the city's most distinguished buildings. The proposed expansion of the existing convention center east to Main Street will increase viewshed issues by opening vistas on Main Street. Currently, there are several National Register listed/eligible properties within the viewshed of the existing Buffalo Convention Center. The State Office Building at 65 Court Street (ca. 1930), the Statler Tower (ca. 1921-1923), Niagara Square and the McKinley Monument (ca. 1907), and the NRHP listed Buffalo City Hall (ca. 1929-1931) are all visible from the main entrance of the convention center, which is located on Franklin Street at Genesee Street. The National Register eligible Liberty Building (ca. 1925) and Lafayette Square are visible from the southeast corner of the convention center. From the intersection of Pearl and Court Streets, two the city's most important public spaces (Niagara Square to the west and Lafayette Square to the east) are in clear view. Site B is also adjacent to the northeastern limits of The Joseph Ellicott (Downtown) Preservation District along Franklin Street, between West Mohawk and Court Streets.

4.2.2.1 National Register Listed or Eligible Properties: Existing Buffalo Convention Center Site (B). Presently, no NRHP-listed or eligible properties are located within the proposed limits of the existing Buffalo Convention Center Site (B). However, the NRHP-listed YMCA Building is adjacent to the northern end of the existing convention center and the southern periphery of the convention center is adjacent to Bley and Lyman's twelve-story, National Register Eligible Walbridge Building (ca. 1924) at 45 Court Street. The National Register Eligible L.L. Berger Building is in proximity to the northern limits of Site B.

4.2.2.2 Potentially National Register Eligible Properties: Existing Buffalo Convention Center Site (B). Due to substantial *exterior and interior alterations* and the lack of historic significance, none of the properties within the existing Buffalo Convention Center Site (B) meet the criteria for listing on the NRHP.

Table 7 Architectural Inventory of Existing Buffalo Convention Center Site (B).

Address	Unique Site Number	Form	National Register Eligible/Listed	Comments
450-452 Main Street	09240.008238	No	No Determination	Does not meet NRHP criteria of eligibility.
456 Main Street	09240.008237	No	No Determination	Does not meet NRHP criteria of eligibility.
460-466 Main Street	09240.003007	Yes	No Determination	Does not meet NRHP criteria of eligibility.
472-474 Main Street	09240.003006	Yes	No Determination	Does not meet NRHP criteria of eligibility.
478 Main Street	09240.003005	Yes	No Determination	Does not meet NRHP criteria of eligibility.
496 Main Street	02940.003018	Yes	No Determination	Does not meet NRHP criteria of eligibility.
500-518 Main Street (L.L. Berger Building)	02940.003017	Yes	99NR1507/ OOPR1192	National Register Listed
510 Main Street (L.L. Berger Building)	02940.003016	Yes	99NR1507	National Register Listed
534 Main Street (DE Morgan Building)	02940.3063	Yes	—	DEMOLISHED
255 Pearl Street	02940.003003	Yes	No Determination	Adjacent building
265-267 Pearl Street	02940.003004	Yes	No Determination	Does not meet NRHP criteria of eligibility.
283 Pearl Street (472 Main Street)	Not previously inventoried.	—	—	472 Main Street extends to Pearl Street.
304 Pearl Street (YMCA Building)	02940.003061	Yes	Listed 1983-11-30 (Ref. No. 83001676)	This NRL bldg. is adjacent to the northern edge of the existing convention center.
153 Franklin Street	—	—	—	Existing convention center.

Key for architectural inventory tables
HD Historic District

Table 8 Previously inventoried structures within the Existing Convention Center Site (B) viewshed.

Address	Unique Site Number	Form	National Register Eligible/Listed	Comments
17 Court Street (Buffalo Industrial Bank Bldg.)	02940.003002	Yes	No Determination	—
43-49 Court Street	02940.003010	Yes	Individually Eligible	—
65 Court Street (NYS Office Building)	02940.003008	Yes	Eligible as part of District	—
68 Court Street (Michael J. Dillon U.S. Courthouse)	02940.003009	Yes	Eligible as part of District	—
95 Franklin Street (Rath Building)	02040.008228	No	Non-Contributing	—
96 Franklin Street (Old County–City Hall)	02040.002979	Yes	Listed 90NR1225 SR 06-23-80	—
110 Franklin Street (Title Guarantee Bldg./1st Unitarian Ch.)	02040.003039	Yes	Eligible as part of District	—
112 Franklin Street	02040.006427	No	Eligible as part of District	—
170 Franklin Street	02040.002906	No	No Determination	—
172 Franklin Street	02040.008295	No	No Determination	—
174 Franklin Street	02040.002907	Yes	No Determination	—
176 Franklin Street	02040.002908	Yes	No Determination	—
181 Franklin Street	02040.008241	No	No Determination	—
185 Franklin Street	02040.008242	No	No Determination	—
190 Franklin Street	02040.008296	No	No Determination	—
196-202 Franklin Street	02040.002909	Yes	No Determination	—
204-210 Franklin Street	02040.002902	Yes	No Determination	—
212 Franklin Street	02040.006009	Yes	No Determination	—
438 Main Street	09240.008239	No	No Determination	—
465 Main Street	09240.003020	Yes	No Determination	—
466 Main Street	09240.003007	Yes	No Determination	—
475 Main Street	09240.008249	No	No Determination	—
483 Main Street	09240.008248	Yes	No Determination	—
485 Main Street	09240.003019	Yes	No Determination	—

Address	Unique Site Number	Form	National Register Eligible/Listed	Comments
495 Main Street (Burger King)	02940.008253	No	Not Eligible -- 500 Block HD	—
501 Main Street	02940.016797	No	Not Eligible -- 500 Block HD	—
503 Main Street	02940.008254	No	Not Eligible -- 500 Block HD	—
505 Main Street	02940.016798	No	Not Eligible -- 500 Block HD	—
505-509 Main Street	02940.008255	No	Not Eligible -- 500 Block HD	—
515-517 Main Street	02940.008257	No	Eligible -- 500 Block HD	—
521 Main Street	02940.008256	No	Not Eligible -- 500 Block H.D	—
523 Main Street	02940.008259	No	Eligible -- 500 Block HD	—
525 Main Street	02940.003050	Yes	Eligible -- 500 Block HD	—
529 Main Street	02940.016796	No	Eligible -- 500 Block HD	—
531-533 Main Street	02940.003051	No	Eligible -- 500 Block HD	—
534 Main Street (DE Morgan Building)	02940.3063	Yes	—	DEMOLISHED
531-533 Main Street	02940.003051	No	Eligible -- 500 Block HD	—
537 Main Street	02940.003052	Yes	Eligible -- 500 Block HD	—
544-48 Main Street (Grant Building)	02940.3069	Yes	—	DEMOLISHED
545 Main Street (Buffalo Savings Bank)	02940.003081	Yes	Listed–Individual	—
546 Main Street (Grant Building)	02940.003062	Yes	—	DEMOLISHED
564 Main Street	02940.003065	Yes	—	DEMOLISHED
565 Main Street	02940.003065	Yes	—	DEMOLISHED
255 Pearl Street	02940.003003	Yes	No Determination	—
265 Pearl Street	02940.003004	Yes	No Determination	—
255 Pearl Street	02940.003003	Yes	No Determination	—

Address	Unique Site Number	Form	National Register Eligible/Listed	Comments
304 Pearl Street (YMCA Bldg. next to existing convention ctr.)	02940.003061	Yes	No Determination	—
308 Pearl Street	02940.003013	Yes	No Determination	—
314 Pearl Street	02940.003012	Yes	No Determination	—
324 Pearl Street	02940.003011	Yes	No Determination	—
20 West Mohawk Street	02940.008269	No	No Determination	—
75-79 West Mohawk Street	02940.002905	Yes	No Determination	—
81 West Mohawk Street	02940.008294	No	No Determination	—
120 West Mohawk Street	02940.008243	No	No Determination	—
13 ½ West Mohawk Street	02940.006581	Yes	No Determination	—

Key for architectural inventory tables
HD Historic District

4.2.3 Waterfront Site (Site C). Presently, the proposed Waterfront Site (C) for the New Buffalo Convention Center consists entirely of asphalt parking lots. The only structures on the site are those associated with the parking lot, which are small attendant's booths. There is minimal landscaping and a metal fence along the perimeter of HSBC Arena parking lot. The HSBC Atrium fronts Washington Street and is adjacent to the western boundary of the Waterfront Site. Perry Street and Scott Street bound the lot to the south and north while the eastern limits of the site end at a point between Baltimore Street and Columbia Street.

Located outside of the city's central business district in the First Ward, the Waterfront Site in the early-to-mid nineteenth century consisted of densely filled blocks of residences interspersed with commercial interests. The Clark and Skinner Canal stretched along the eastern edge of the Waterfront Site on the approximate alignment of Baltimore Street. This south-north slip connected the Main and Hamburg extension of the Erie Canal with the Buffalo River. During the nineteenth century, this section of the city east of Washington Street and south of the Erie Canal was a rich industrial district that was also the center of the city's early ironworking industry. By the late nineteenth century, industrial and manufacturing operations had taken over this section of the city. Businesses were linked to water and rail transportation.

The Lehigh Valley yards occupied a large area from Carroll and Exchange Streets south to Perry Street. For most of the twentieth century, the Waterfront Site was the property of the Lehigh Valley Railroad Company, which constructed a large, one-story, steel-frame and brick freight station on the site in 1916. The freight station extended

east to Mississippi Street, across the northern edge of the property, on south side of Scott Street. The remainder of the lot consisted of the company's terminal freight yard tracks, which entered the yard from the northeast at Mississippi Street. In the 1950s, the New York State Thruway Authority acquired much of the Lehigh Valley Railroad property north of Scott Street. The Neo-Classical-style Lehigh Valley Passenger Station (ca. 1914-15; demolished 1964) occupied the site of the present General Donovan State Office Building on Washington Street.

No National Register-listed or eligible buildings are located within the immediate viewshed of the Waterfront Site. On the opposite side of Perry Street are the HSBC Arena and an area known as the Cobblestone District, which features streets constructed with Medina sandstone pavers and a block of vernacular masonry buildings. In 1993, the Cobblestone District was evaluated due to the construction of the arena and NYSHPO determined that only one property within the square block of Illinois Street, Perry Street, Columbia Street, and South Park Avenue—the Phoenix Die Casting Company (110-116 South Park Avenue and Illinois Street)—was individually eligible for listing on the NRHP (May 13, 1993). This mid-nineteenth century commercial/industrial building is beyond the viewshed of the Waterfront Site.

Table 9 Previously inventoried structures in Waterfront Site (C) viewshed with National Register determinations

Address	Unique Site Number	Form	National Register Eligible/Listed	Comments
32 Illinois Street	02940.006746	Yes	Eligible – HABS	Demolished
45-57 Illinois Street (Tashenburg Bros.)	02940.023484	Yes	Not Eligible	SHPO Letter (7/7/97)
49-53 Illinois Street (Queen City Engineering)	02940.023483	Yes	Not Eligible	SHPO Letter (7/7/97)
55 Illinois Street (Aldrich Mfg. Co.)	02940.023485	Yes	Not Eligible	SHPO Letter (7/7/97)
26 Mississippi Street	02940.023481	Yes	Not Eligible	SHPO Letter (7/7/97)
32 Mississippi Street	02940.023326	No	Not Eligible	SHPO Letter (7/7/97)
32 Mississippi Street (Building 2)	02940.023330	No	Not Eligible	SHPO Letter (7/7/97)
32 Mississippi Street (Building 3)	02940.023331	No	—	Demolished
79-82 Perry Street	02940.023482	Yes	Not Eligible	SHPO Letter (7/7/97)
180 Perry Street	02940.023435		Not eligible as part of Cobblestone District	SHPO Letter (7/7/97)
110-116 South Park Ave. (Phoenix Die Casting Co.)	02940.006762		Eligible as Individual	SHPO Letter (7/7/97) and Eligibility Evaluation (5/13/93)
Cobblestone District			Not Eligible	SHPO Letter (7/7/97)

4.3 RECOMMENDATIONS

The objective of the present Phase IA architectural reconnaissance level survey was to document and identify structures within and/or adjacent to the proposed new Buffalo Convention Center sites (A, B, and C). Construction of a new 400,000 to 425,000 gross square foot facility in Buffalo's central business district will not only affect the city's existing historic building stock, but the city's urban character as well. A total of 53 structures were identified within the proposed locations for the new convention center. This study concludes that seven properties are potentially eligible for inclusion in the National Register of Historic Places (NRHP). One structure, 504 Washington Street, is potentially eligible as a contributing component of the existing NRE 500 Block Historic District. All of the recommended properties are located in the Mohawk Site (A).

If either the Mohawk Site or the existing Buffalo Convention Center Site is the selected alternative, it is recommended that the lead agency avoid or minimize impacts to all NRHP-eligible or potentially eligible properties on or adjacent to the site. If avoidance is not feasible then the lead agency should obtain an NRHP eligibility determination from New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP) for all potentially eligible structures. Any National Register Eligible structures proposed for demolition must be mitigated. Adequate architectural recordation measures as well as the level of documentation required for any eligible structures will need to be established with NYS OPRHP consultation. Mitigation measures may include Historical American Building Survey/Historic American Engineering Record (HABS/HAER) recordation or similar type documentation. No level of documentation should be conducted without NYS OPRHP approval. Copies of this documentation should be submitted to NYS OPRHP and to appropriate local archives designated by NYS OPRHP and Erie County. A site by site discussion follows.

Mohawk Site (A). The Mohawk Site is the most architecturally sensitive of the three alternatives. Presently, the site includes seven properties that are potentially eligible for listing in the National Register.

The Mohawk Site consists of 46 commercial, retail and light industrial buildings that range from one-part commercial blocks (338-340 Ellicott Street) to multi-storied, two-part vertical blocks (500 Washington Street). However, most of the building stock consists of three-story, two-part commercial blocks (500 Block Historic District). The site also contains a mid-twentieth century parking ramp. Older commercial buildings dating from the mid-to-late nineteenth century are located on the west side of Main Street and along the south side of East Genesee Street. The northwest quarter of the Mohawk Site contains the largest concentration of buildings while the remainder of the site consists of intermittent commercial rows, isolated buildings and asphalt parking lots. Since the 1960s, approximately 27 buildings in the limits of the Mohawk Site have been demolished.

Potentially National Register Eligible (NRE) Properties: Mohawk Site (Site A). This study identified seven properties on the Mohawk Site that are potentially National Register Eligible with one building (504 Washington Street) potentially eligible as a contributing component of the existing NRE 500 Block Historic District. No historic districts were identified as potentially National Register Eligible in the Mohawk Site study area.

6 Blossom Street (or 317 Ellicott Street) (Unique Site Number [USN] 02940.003119). This two-story, Italianate-style outbuilding is potentially eligible for inclusion in the NRHP (under Criteria A and C) as the only surviving example of a late nineteenth century stable in the central business district of the City of Buffalo.

36 Broadway (USN 02940.003122). This late nineteenth century Second Empire-style commercial building is potentially eligible for inclusion in the NRHP (under Criteria B and C) as a surviving example of its type and for its association with Charles Ephraim Burchfield (1893-1967), a noted artist who worked in the area for a local wallpaper company H. Birge & Sons Company.

25 East Huron Street. The Burns Building is potentially National Register Eligible as a representative example of a largely intact early twentieth century (ca. 1919) loft building (under Criterion C). This six-story, steel-framed building features a high degree of integrity with its facade retaining many of architectural details including a mostly intact original storefront.

321 Ellicott Street. The main building of the Ferguson Electric complex is potentially National Register Eligible (under Criteria A and C) as a representative example of a late nineteenth century (ca. 1892) commercial building and for its association with the electric industry in the City of Buffalo. This three-story commercial building features largely intact Queen Anne detailing on its upper floors though its original storefront has been altered.

465 Washington Street (USN 02940.003047). The ca. 1909-1911 Sinclair Building (a.k.a. Remington-Rand Building) at 465 Washington Street may be potentially National Register Eligible (under Criterion C) as a good representative example of a largely intact early twentieth century commercial building and for its association with one of the city's leading architectural firms of the period, Esenwein and Johnson. The firm is best known for their work at the 1901 Pan American Exposition, the Niagara Mohawk Building (formerly the General Electric Building), Lafayette High School, and a number of Buffalo residences.

501 Washington Street. The ca. 1923 George Washington Building (Holling Press Building) is potentially National Register Eligible (under Criteria A and C) as an excellent example of an early twentieth century loft with a reinforced concrete frame and for its association with the Buffalo's printing industry.

504 Washington Street (USN 00940.003054). This late nineteenth century Italianate-style commercial building is potentially eligible as a contributing component of the National Register Eligible 500 Block Historic District.

Existing Convention Center Site (B). None of the seven commercial buildings identified on the proposed existing Buffalo Convention Center Site (B) are potentially eligible for the National Register. This location mainly is comprised of the present 180,000 square foot Buffalo Convention Center (ca. 1978), which occupies almost the entire square block bound by Franklin and Pearl Streets to the west and east, and Court and West Mohawk Streets to the south and north.

National Register Listed or Eligible Properties: Existing Buffalo Convention Center Site (B). Presently, no NRHP listed or eligible properties are located within the proposed limits of the existing Buffalo Convention Center Site (B).

Potentially National Register Eligible Properties: Existing Buffalo Convention Center Site (B). Due to substantial exterior and interior alterations and the lack of historic significance, none of the properties within the existing Buffalo Convention Center Site (B) meet the criteria for listing on the NRHP.

Waterfront Site (C). There are no historic building concerns in the Waterfront Site. Therefore no further architectural work is recommended if this alternative is selected.

5.0 Summary of Recommendations

Archival, map, and documentary research indicates that all three alternatives have some historic archaeological sensitivity but very low prehistoric sensitivity. The least archaeological sensitive site is the existing Convention Center Site (B) because the existing convention center covers over half the property. Phase IB archaeological testing is only recommended on the portion of the site located on the east side of Pearl Street and under Pearl Street. Both the Mohawk Site (A) and the Waterfront Site (C) have potential for locating buried historic deposits. The Mohawk Site has moderate to high sensitivity because a portion of the site contains standing structures which will not require archaeological investigation. The Waterfront Site is designated as high sensitivity for locating buried historic resources because there are no areas that can be eliminated from investigation. The probability of locating buried deposits in open areas without current structures at each proposed alternative site is approximately the same. However, the level of archaeological investigation at each site will be contingent on the amount of open available space: the existing Convention Center Site B requiring the least amount of Phase IB subsurface testing and the Waterfront Site C requiring the most.

Construction of a new 400,000 to 425,000 gross square foot facility in Buffalo's central business district will not only affect the city's existing historic building stock, but also its urban character. If either the Mohawk Site or the existing Buffalo Convention Center Site is the selected alternative, it is recommended that the lead agency avoid or minimize impacts to all NRHP-eligible or potentially eligible properties on or adjacent to the site. If avoidance is not feasible then the lead agency should obtain an NRHP eligibility determination from NYS OPRHP for all potentially eligible structures. Any National Register Eligible structures proposed for demolition must be mitigated. Adequate architectural recordation measures as well as the level of documentation required for any eligible structures will need to be established with NYS OPRHP consultation. Mitigation measures may include Historical American Building Survey/ Historic American Engineering Record (HABS/HAER) recordation or similar type documentation. No level of documentation should be conducted without NYS OPRHP approval. Copies of this documentation should be submitted to the NYS OPRHP and to appropriate local archives designated by the NYS OPRHP and Erie County. A site by site discussion follows.

Mohawk Site (A). The Mohawk Site is the most architecturally sensitive of the three alternatives. Presently, the site includes one National Register Eligible historic district and no less than seven individual properties that may be potentially eligible for the National Register. The Mohawk Site has moderate to high archaeological sensitivity because a portion of the site contains standing structures which will not require archaeological investigation.

Existing Convention Center Site (B). Site B is the least archaeologically sensitive of the three locations due to extensive construction of large-scale commercial buildings.

Pearl Street may be a plank road. The Existing Convention Center Site is the second most architecturally sensitive site after the Mohawk Site.

Waterfront Site (C). The Waterfront Site has the highest potential for archaeological sensitivity. There are no historic building concerns in the Waterfront Site therefore no further architectural work is recommended if this alternative is selected.

6.0 References

Abler, Thomas S., and Elisabeth Tooker
1978 Seneca. In *Northeast*, edited by Bruce G. Trigger, pp. 505-517. Handbook of North American Indians, vol. 15, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Banham, Reyner
1981 Introduction. In *Buffalo Architecture: A Guide*, pp. 1-14. By Buffalo Architectural Guidebook Corporation The MIT Press, Cambridge.

Barbour, Warren T. D., and Erika K. Fiorella
1998 *The Horizons Waterfront Inner Harbor Project Stage 1A Cultural Resource Literature Search City of Buffalo, Erie County, New York.* Dean & Barbour Associates, Inc., Buffalo.

Beardsley, Richard K., P. Holder, A.D. Krieger, B.J. Meggers, J.B. Rinaldo, and P. Kutsche
1956 Functional and evolutionary implications of community patterning. In *Seminars in Archaeology*: 1955, edited by R. Wauchope. Memoirs of the Society of American Archaeology, No. 11, Salt Lake City, UT.

Beauchamp, William M.
1900 Aboriginal Occupation of New York. *New York State Museum Bulletin* No. 32. Albany.

Beers, Frederick W.
1880 *Illustrated Historical Atlas of Erie County, New York.* F.W. Beers & Company, New York.

Beveridge, Charles
1981 Buffalo's Park and Parkway System. In *Buffalo Architecture: A Guide.*, pp. 15-23. By Buffalo Architectural Guidebook Corporation. The MIT Press, Cambridge.

Bingham, Robert W.
1931 *The Cradle of the Queen City; a History of Buffalo to the Incorporation of the City.* Buffalo, Historical Society, Buffalo.

Bolino, M., C. Longiaru, and E. Herold
2000 Addendum Archaeological and Architectural Reconnaissance Survey PIN 5754.55.121 Replacement of the Michigan Avenue Bridge over the Conrail Railroad Tracks and Exchange Street, City of Buffalo, Erie County, New York. SUNY Buffalo *Reports of the Archaeological Survey* (Volume 32, Number 5).

Bowler, R. Arthur
1976 The Burning of Buffalo. Reprint by Chuck LaChiusa, 2000. On Internet at http://bfn.org/sigs/links/preserve/hist/essays/burning/burning.html.

Brasser, T.J.
1978 Early Indian-European Contacts. In *Northeast*, edited by Bruce G. Trigger, pp. 78-88. Handbook of North American Indians, vol 15, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Buffalo Architectural Guidebook Corporation
1981 *Buffalo Architecture: A Guide*. The MIT Press, Cambridge.

Buffalo History Works
2000a Grain Elevators; Milling in Buffalo. On Internet at Buffalo History Works, http://intotem.buffnet.net/bhw/grain/milling/milling.htm.

2000b Grain Elevators; A History. On Internet at Buffalo History Works, http://intotem.buffnet.net/bhw/grain/history/history.htm.

2000c Grain Elevators; How to See Them. 2 Parts. On Internet at Buffalo History Works, http://intotem.buffnet.net/bhw/grain/location/location.htm.

Bureau of Engineering
1897 *Index to Records of Streets, Public Grounds, Waterways, Railroads, Gas Companies, Water Works, etc of the City of Buffalo from 1814 to 1896*. The Wenborne-Sumner Co., Printers, Buffalo.

Caldwell, Joseph R.
1956 Trend and Tradition in the Prehistory of the United States. *Memoirs of the American Anthropological Association* 88. Menasha, WI.

Cinquino, Michael A., Inez Reed-Hoffman, Edward V. Curtin, Kerry L. Nelson, Mark A. Steinback, and Marilyn E. Kaplan
1997 *Phase I Cultural Resource Survey of the Seneca Army Airfield and Adjacent Areas Southeast, Seneca Army Depot Activities, Romulus, Seneca County, New York*. Panamerican Consultants, Inc., Depew, NY. Prepared for the U.S. Army Corps of Engineers, New York District, New York.

Commercial Advertiser
1922 Hens & Kelly to Erect New Six Story Store. *Commercial Advertiser*, June 5, 1922.

de Laubenfels, David J.
1966 Vegetation. In *Geography of New York State*, edited by John H. Thompson. pp. 90-103. Syracuse University Press, Syracuse.

Dincauze, Dena F., and Mitchell T. Mulholland
1977 Early and Middle Archaic Site Distributions and Habitats in Southern New England. In *Amerinds and Their Paleoenvironments in Northeastern North America*, edited by W.S. Newman and B. Salwen, pp. 439-456. Annals of the New York Academy of Sciences, Vol. 288, New York.

Dragoo, Don W.
1963 *Mounds for the Dead: An Analysis of the Adena Culture.* Annals of the Carnegie Museum, Volume 37, Pittsburgh.

Dunn, Walter S., Jr. (ed)
1972 *History of Erie County 1870-1970.* The Buffalo and Erie County Historical Society, Buffalo.

Eberle, Scott, and Joseph A. Grande
1987 *Second Looks: A History of Buffalo and Erie County.* The Donning Company/ Publishers, Norfolk, VA.

Ecology and Environment, Inc.
1984 *Draft Environemental Impact Statement for the Proposed Downtown Buffalo Sports Complex, Erie County, New York.* Ecology and Environment, Inc., Buffalo.

1993 *Phase 1A Cultural Resource Survey for the Proposed Crossroads Sports Arena and Entertainment Complex, Buffalo, New York.* E&E, Inc., Lancaster, NY.

Ellis, David M., James A. Frost, Harold C. Syrett, and Harry J. Carmen
1967 *A History of New York State.* Cornell University Press, Ithaca, NY.

Fischer, Mark
1999a Buffalo & Southwestern Railroad in *Western New York Railroad Archive* at Internet site http://wnyrails.railfan.net.

1999b Erie Railroad in *Western New York Railroad Archive* at Internet site http://wnyrails.railfan.net.

2000 *History of the Lake Shore and Michigan Southern Railway Company.* On Internet at http://www.railroad.net/nyc/lsms.html.

Fitting, James E.
1968 Environmental Potential and the Postglacial Readaptation in Eastern North America. *American Antiquity* 33(4):441-445.

1975 Climatic Change and Cultural Frontiers in Eastern North America. *Michigan Archaeologist* 21:25-39.

Fitzer, Pete
1962 Evidence for Horticulture during Early-Middle Woodland Times in the Eastern United States. *Pennsylvania Archaeologist* 32:14-20.

Funk, Robert E., and Frank F. Schambach
1964 Probable Plano Points in New York State. *Pennsylvania Archaeologist* 34:90-93.

Glover, Wilbur H.
1972 A History of the Town of Amherst. In *The Towns of Erie County.* The Buffalo and Erie County Historical Society, Buffalo.

Goldman, Mark
1983 *High Hopes; The Rise and Decline of Buffalo, New York.* State University of New York Press, Albany.

Graham, Lloyd
1966 *Buffalo; Metropolis of the Niagara Frontier.* Henry Stewart, Inc., Buffalo.

Gramly, Richard M.
1977 Deerskins and Hunting Territories: Competition for a Scarce Resource in the Northeast. *American Antiquity* 42:601.

Granger, Joseph E.
1978 Meadowood Phase Settlement Pattern in the Niagara Frontier Region of Western New York. *Anthropological Papers*, Museum of Anthropology, University of Michigan 65. Ann Arbor.

Griffin, James B.
1967 Eastern North American Archaeology: A Summary. *Science* 156:175-191.

HAA
1999 *Phase IA Archaeological Sensitivity Assessment and Surface Reconaissance, Proposed Fiber Optic Line, City of Buffalo, Erie County, New York.* Hartgen Archaeological Associates, Inc., Rensselaer, NY.

2000 *Phase I Archaeological Investigation Surface Reconnaissance and Monitoring Williams Communications Fiber Optic Line City of Buffalo, Erie County, New York.* Hartgen Archaeological Associates, Inc., Rensselaer, NY.

Haag, William G.
1962 The Bering Strait Land Bridge. *Scientific American* 150.

Hayward, Michele H., Michael A. Cinquino, Frank J. Schieppati, Daniel M. Cadzow, Christine M. Longiaru, and Robert J. Hanley
2001 *Letter Report: Archaeological Monitoring of Commercial Slip Overburden Removal, Buffalo Inner Harbor Project, City of Buffalo, Erie County, New York.* Panamerican Consultants, Inc., Buffalo Branch, Buffalo. Prepared for Parsons Brinckerhoff, Quade & Douglas, Inc., Buffalo.

Hoffman, Bernard B.
1961 *Cabot to Cartier: Sources for an Historical Ethnography of Northeastern North America 1497-1550.* University of Toronto Press, Toronto.

Holder, Robert
1960 The Beginnings of Buffalo Industry. *Adventures in Western New York History*, vol. V. Buffalo and Erie County Historical Society, Buffalo.

Hopkins, Griffith Morgan
1893 *Atlas of the Vicinity of the Cities of Niagara Falls, North Tonawanda, and Buffalo, New York.* G.M. Hopkins, Publisher, Philadelphia.

Horton, John T., Edward T. Williams, and Harry S. Douglas
1947 *History of Northwestern New York.* 3 vols. Lewis Historical Publishing Co., New York.

Houghton, Frederick
1909 *Indian Occupancy of the Niagara Frontier and Indian Village, Camp, and Burial Sites in the Niagara Frontier.* Bulletin of the Buffalo Society of Natural Sciences 9(2).

Howells, W.H.
1880 *Commerce, Manufactures and Resources of Buffalo and Environs.* Commercial Publishing Company, Ltd., Buffalo.

Hunt, George T.
1940 *The Wars of the Iroquois: A Study in Inter-tribal Trade Relations.* University of Wisconsin Press. Madison.

Johnson, Crisfield
1876 *Centennial History of Erie County, New York.* Printing House of Mathews & Warren, Buffalo.

Kazarian, Ralph
1955 Size No Key to Printing Quality Here. *Buffalo Express* May 15, 1955.

Keller, Marvin, Michael A. Cinquino, Carmine A. Tronolone, and Charles E. Vandrei, Jr.
1981 *Archaeological Investigations of the Buffalo Log Road Site (UB 1682), Buffalo, New York: Data Recovery Program.* Prepared for Corddry, Carpenter, Dietz and Zack, Buffalo, and Niagara Frontier Transportation Authority, Buffalo. Prepared by Ecology and Environment, Inc., Buffalo.

Kowsky, Francis R., Mark Goldman, Austin Fox, John D. Randall, Jack Quinan, and T. Lasher
1981 *Buffalo Architecture: A Guide.* Buffalo Architectural Guidebook Corporation. The MIT Press, Cambridge, MA, and London.

Lankes, Frank J.
1962 *An Outline of West Seneca History.* West Seneca Historical Society, West Seneca, NY.

1964 *The Senecas on Buffalo Creek Reservation.* West Seneca Historical Society, West Seneca, NY.

1968 *Just for Old Times Sake.* West Seneca Historical Society, West Seneca, NY.

Larned, J(osephus) N(elson)
1911 *A History of Buffalo, Delineating the Evolution of the City.* 2 vols. The Progress of the Empire State Company, New York.

Longiaru, Christine M.
1999 *A History of Architectural Cast Iron in Buffalo, New York:1850-1900.* A thesis submitted to the Faculty of Graduate School of State University of New York at Buffalo.

Longiaru, Christine M., and James Hartner
1998 Preliminary Archaeological and Architectural Reconnaissance Survey, Replacement of the Michigan Avenue Bridge (BIN 2260610) over the Conrail Railroad Tracks and Exchange Street, City of Buffalo, Erie County, New York. *Reports of the Archaeological Survey* 30(31).

Mason, Ronald J.
1981 *Great Lakes Archaeology.* Academic Press, New York.

Miller, N.
1973 *Late-glacial and Post Glacial Vegetation Change in Southwestern, New York State.* New York State Museum Bulletin 420. New York State Museum, Albany.

Muller, E.H.
1977 Late glacial and early postglacial environments in western New York. *Annals of the New York Academy of Sciences* 288:223-233.

Nichols, John B.
1928 Notes on rock crevice burials in Jefferson County at Point Peninsula. *Researches and Transactions of the New York State Archaeological Association* 5(4). Rochester.

Noble, William C.
1975 Corn and the Development of Village Life in Southern Ontario. *Ontario Archaeology* 25:37-46.

Old Fort Niagara Association
2000 Old Fort Niagara, Youngstown, NY. On Internet at http://www.oldfortniagara.org/frenchhistory.htm.

Owens, Donald W., Willie L. Pittman, John P. Wulforst, and Willis E. Hanna
1986 *Soil Survey of Erie County, New York.* United States Department of Agriculture, Soil Conservation Service in cooperation with the Cornell University Agricultural Experiment Station. U.S. Government Printing Office, Washington, D.C.

Panamerican Environmental, Inc.
2000 *Phase I Environmental Site Assessment: Webster Block, City of Buffalo, Erie County, New York.* Panamerican Environmental, Inc., Buffalo. Prepared for the Buffalo Urban Renewal Agency, Buffalo.

Parker, Arthur C.
1922 The Archaeological History of New York. *New York State Museum Bulletin* Nos. 237, 238. Albany.

Prufer, Olaf
1964 The Hopewell Cult. *Scientific American* 152.

Quackenboss & Kennedy
1854 *Map of the City of Buffalo, New York.* Quackenboss & Kennedy, Insurance Agents, New York

Ramsden, Peter G.
1978 An Hypothesis Concerning the Effects of Early European Trade among Some Ontario Iroquois. *Canadian Journal of Archaeology* #2.

Rippeteau, Bruce E.
1977 New Data and Models for 8,000 Years of Archaic Societies and Their Environments in the Upper Susquehanna Valley of New York State. *Annals of the New York Academy of Sciences* 288:392-399.

Ritchie, William A.
1955 The Northern Burial Cult. *Pennsylvania Archaeologist* 25:45-50.

1969 *The Archaeology of New York State* (Revised second edition). Natural History Press, Garden City, NY.

1980 *The Archaeology of New York State*. Revised Edition. Harbor Hill Books, Harrison, NY.

Ritchie, William A., and Don W. Dragoo
1960 The Eastern Dispersal of Adena, New York. *New York State Museum and Science Service Bulletin* 379. University of the State of New York, Albany.

Ritchie, William A., and Robert E. Funk
1973 *Aboriginal Settlement Patterns in the Northeast.* New York State Museum, Memoir 20. Albany.

Sanborn Library Company, LLC
1868 *Sanborn Fire Insurance Map of the City of Buffalo.* Sanborn Map Company, New York.

1889 *Sanborn Fire Insurance Map.* Environmental Data Resources, Inc., np.

1899 *Sanborn Fire Insurance Map.* Environmental Data Resources, Inc., np.

1925 *Sanborn Fire Insurance Map.* Environmental Data Resources, Inc., np.

1951 *Sanborn Fire Insurance Map.* Environmental Data Resources, Inc., np.

1981 *Sanborn Fire Insurance Map.* Environmental Data Resources, Inc., np.

1986 *Sanborn Fire Insurance Map.* Environmental Data Resources, Inc., np.

Sass, Herman
1983 *The Bountiful Baron of Buffalo.* Cayuga Creek Historical Press, Lancaster, NY.

Schein, Richard H.
1993 Framing the Frontier: The New Military Tract Survey in Central New York. In *New York History* 74(1), pp. 5-28.

Schifferli, Michael P., W.T.D Barbour, C. Jackson, C. O'Brien, J. Critchley, and C. Waugh.
2000 *Report of the Archaeological Monitoring Efforts for the Cobblestone District, City of Buffalo, Erie County, New York*. Dean & Barbour Associates, Inc., Buffalo.

Shaw, Ronald E.
1990 *Erie Water West; A History of the Erie Canal, 1792-1854.* Paperback ed. The University of Kentucky Press, Lexington.

Silsby, Robert W.
1961 The Holland Land Company in Western New York. *Adventures in Western New York History*, vol. VIII. Buffalo and Erie County Historical Society, Buffalo.

Smith, H(enry) Perry
1884 *History of Buffalo and Erie County*. 2 vols. D. Mason & Co., Syracuse, NY.

Snethkamp, Pandora E.
1974 *The Claud 1 Site: A Stratified Susquehanna-Lamoka Component in the Genesee Valley.* Unpublished manuscript, Department of Anthropology, State University of New York at Buffalo. Buffalo.

Snow, Dean R.
1980 *The Archaeology of New England.* Academic Press, New York.

Spence, Michael W.
1967 A Middle Woodland Burial Complex in the St. Lawrence Valley. *National Museum of Canada Anthropological Papers*, No. 14.

Squier, Ephraim G.
1851 *Antiquities of the State of New York.* Geo. H. Derby and Co., Buffalo.

Stone and Stewart
1866 *New Topographical Atlas of Erie County, New York.* Stone and Stewart, Publishers, Philadelphia.

Strothers, David M.
1977 The Princess Point Complex. *National Museum of Canada, Archaeological Survey of Canada Paper* No. 58.

Sykes, Clark M.
1980 Swidden Horticulture and Iroquois Settlement. *Archaeology of Eastern North America* 8:45-52.

Todd, Nancy
1992 Eligibility Attachment, 500 Block Historic District, Buffalo, New York. Dated January 22, 1992. New York State Office of Parks, Recreation and Historic Preservation, Peebles Island, Waterford.

Tooker, Elisabeth

1978 The League of the Iroquois: Its History, Politics, and Ritual. In *Northeast*, edited by Bruce G. Trigger, pp. 418-441. Handbook of North American Indians, vol. 15, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Trigger, Bruce G.

1976 *The Children of Aataentsic: A History of the Huron People to 1660.* McGill-Queens University Press, Montréal.

1978 Early Iroquois Contacts with Europeans. In *Northeast*, pp. 344-356. Handbook of North American Indians, vol. 15, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Tronolone, Carmine A.

1985 *Cultural Resource Survey for the Proposed Downtown Buffalo Sports Complex, Erie County, New York.* Prepared by Ecology and Environment, Inc., Buffalo. Prepared for Development Downtown, Inc., Buffalo.

Tronolone, Carmine A., and Michael A. Cinquino

1986 *Stage 1B Cultural Resource Survey for the Proposed Downtown Buffalo Sports Complex: Exchange Street Parking Ramp, Erie County, New York.* Ecology and Environment, Inc. Buffalo.

Trubowitz, Neil L.

1977 *Highway Archaeology and Settlement Study in the Genesee Valley.* Unpublished Ph.D. Thesis. Department of Anthropology, State University of New York at Buffalo.

Tuck, James A.

1978 Archaic burial ceremonialism in the Far Northeast. In *Essays in Northeastern Anthropology in Memory of Marian E. White*, edited by W. Englebrecht and D. Grayson (eds). Department of Anthropology, Franklin Pierce College, Rindge, NH.

Turner, Orsamus

1974[1850] *Pioneer History of the Holland Purchase of Western New York.* Geo. H. Derby and Co., Buffalo. Rpt: James Brunner, Geneseo, NY, 1974.

Vandrei, Charles E., and Brian Lee Nagel

1980 Archaeological and Documentary Research on UB 1682 Buffalo Plank Road. Edited by Mark S. Aldenderfer. *Reports of the Archaeological Survey* 12(13). Department of Anthropology, State University of New York at Buffalo.

Van Ness, Cynthia

1999 *Victorian Buffalo: Images from the Buffalo and Erie County Public Library.* Western New York Wares, Inc., Buffalo.

Wallace, Anthony F. C.

1970 *The Death and Rebirth of the Seneca.* Alfred A. Knopf, New York.

Whallon, Robert

1968 Investigations of late prehistoric social organization in New York State. In *New Perspectives in Archaeology,* edited by Sally and Lewis Binford. Aldine, Chicago.

White, Marian E.

1960 Niagara Frontier Iroquois village movements. *Eastern States Archaeological Federation Bulletin* 19:16.

1961 Iroquois Culture History in the Niagara Frontier Area of New York State. *Anthropological Papers,* No. 16. Museum of Anthropology, University of Michigan.

1963 Settlement Pattern Change and the Development of Horticulture in the New York-Ontario Area. *Pennsylvania Archaeologist* 33:1-12.

1971 Ethnic Identification and Iroquois Groups in Western New York and Ontario. *Ethnohistory* 18:19-38.

1978a Neutral and Wenro. In *Northeast,* edited by Bruce G. Trigger, pp. 407-411. Handbook of North American Indians, vol. 15, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

1978b Erie. In *Northeast,* edited by Bruce G. Trigger, pp. 412-417. Handbook of North American Indians, vol. 15, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

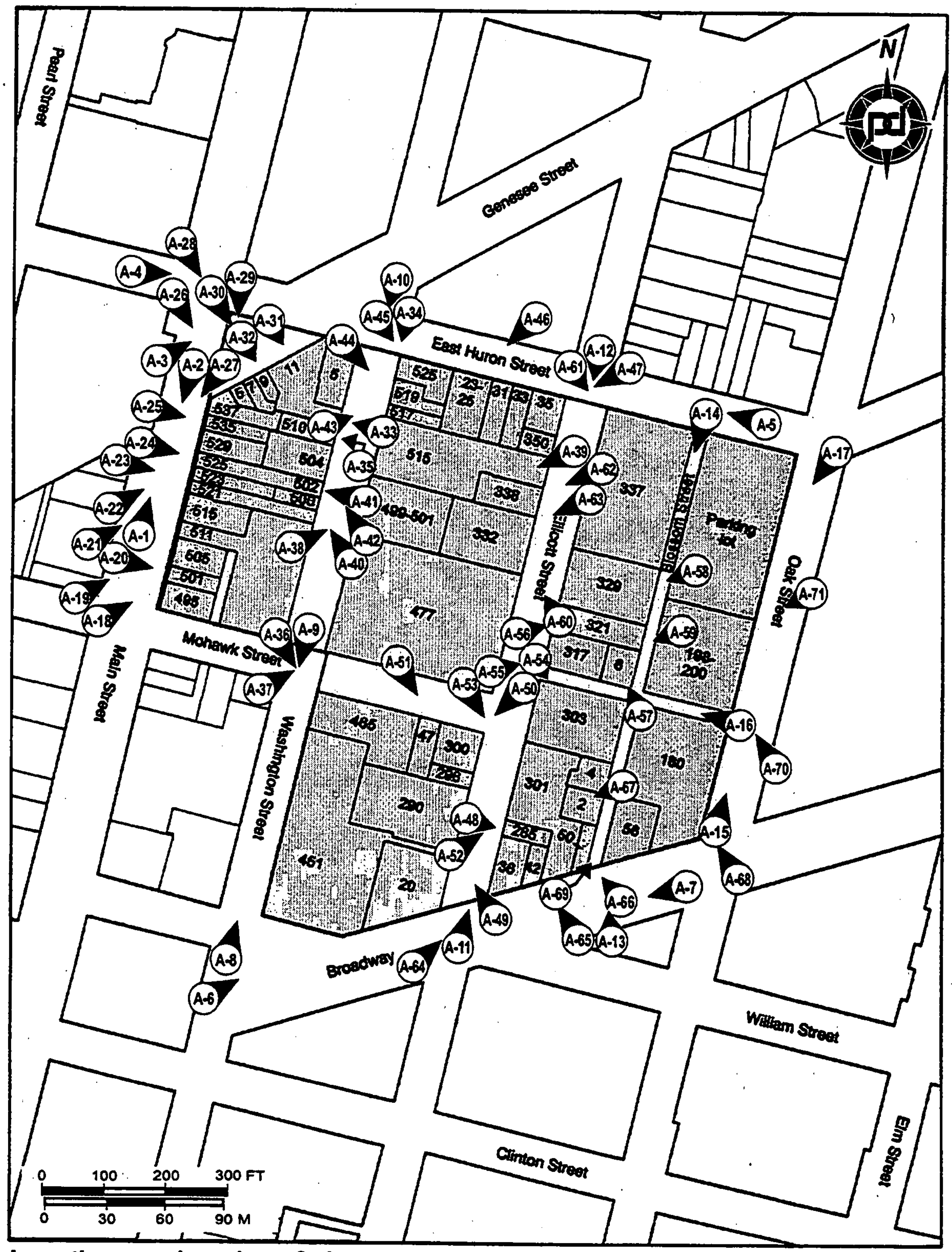
White, Truman C. (Editor)

1898 *Our County and its People; a Descriptive Work on Erie County, New York.* 2 vols. Boston History Company, Boston.

Wright, James

1964 *The Ontario Iroquois Tradition.* Unpublished Ph.D. thesis, Department of Anthropology, University of Wisconsin.

Appendix A
Photographs Mohawk Site (A)

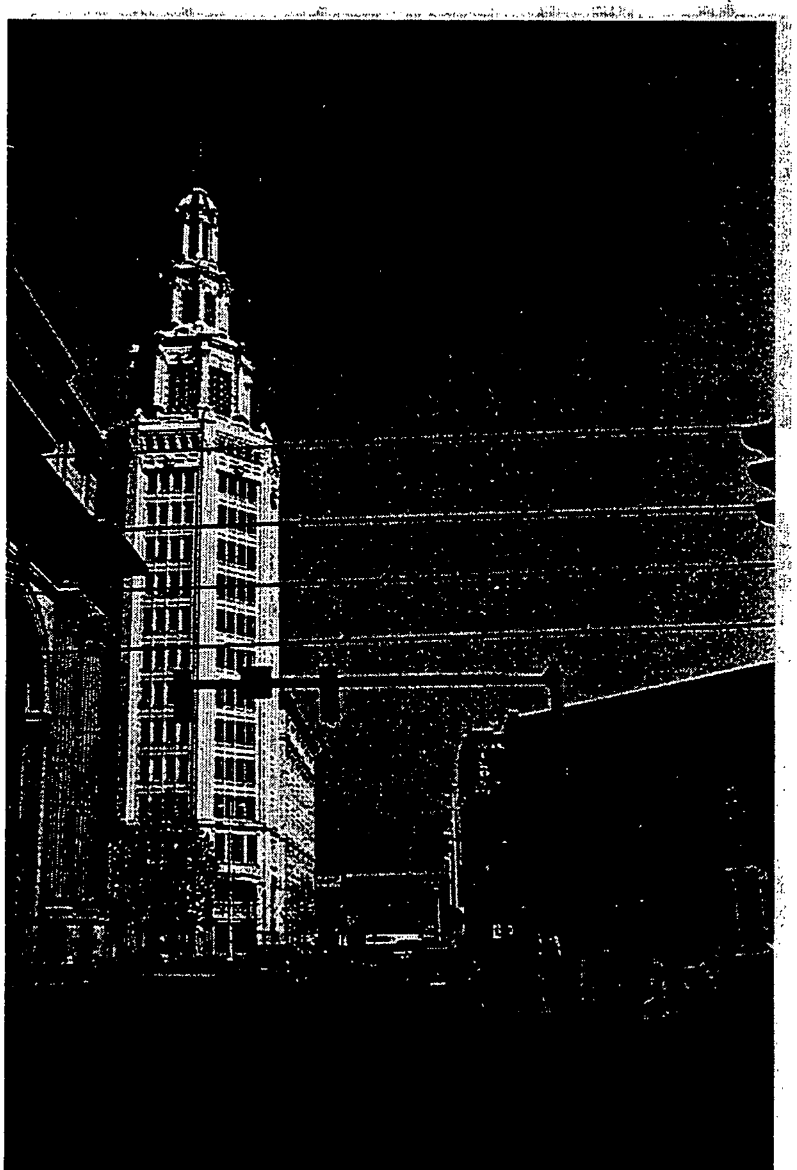


Locations and angles of photographs in Appendix A.

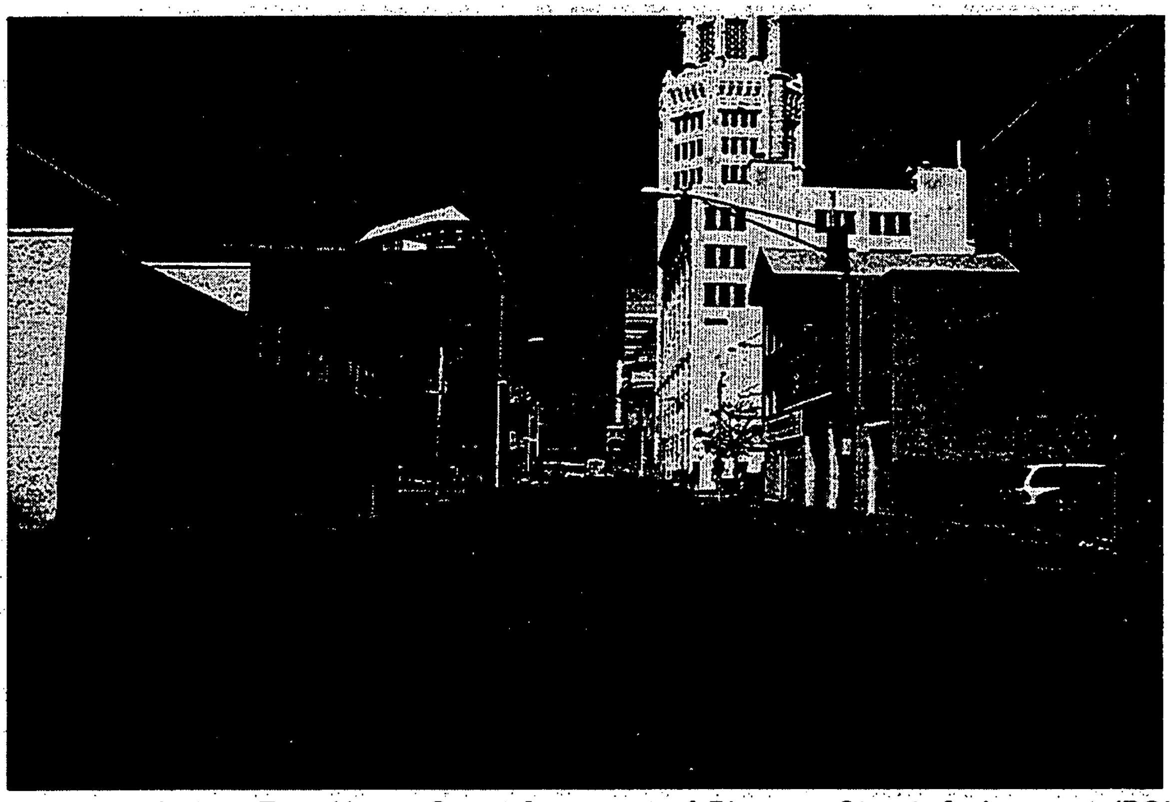
Photograph A-1. Main Street from Mohawk Place Park showing the 500 Main Street Block at right, facing north *(PCI 2001).*

Photograph A-2. Main Street from near East Huron Street showing the 500 Main Street Block at left, facing south *(PCI 2001).*

Photograph A-3. Genesee Street from Main Street showing Theodore Roosevelt Plaza in the foreground and the Liberty Bank Building at left, facing northeast *(PCI 2001).*

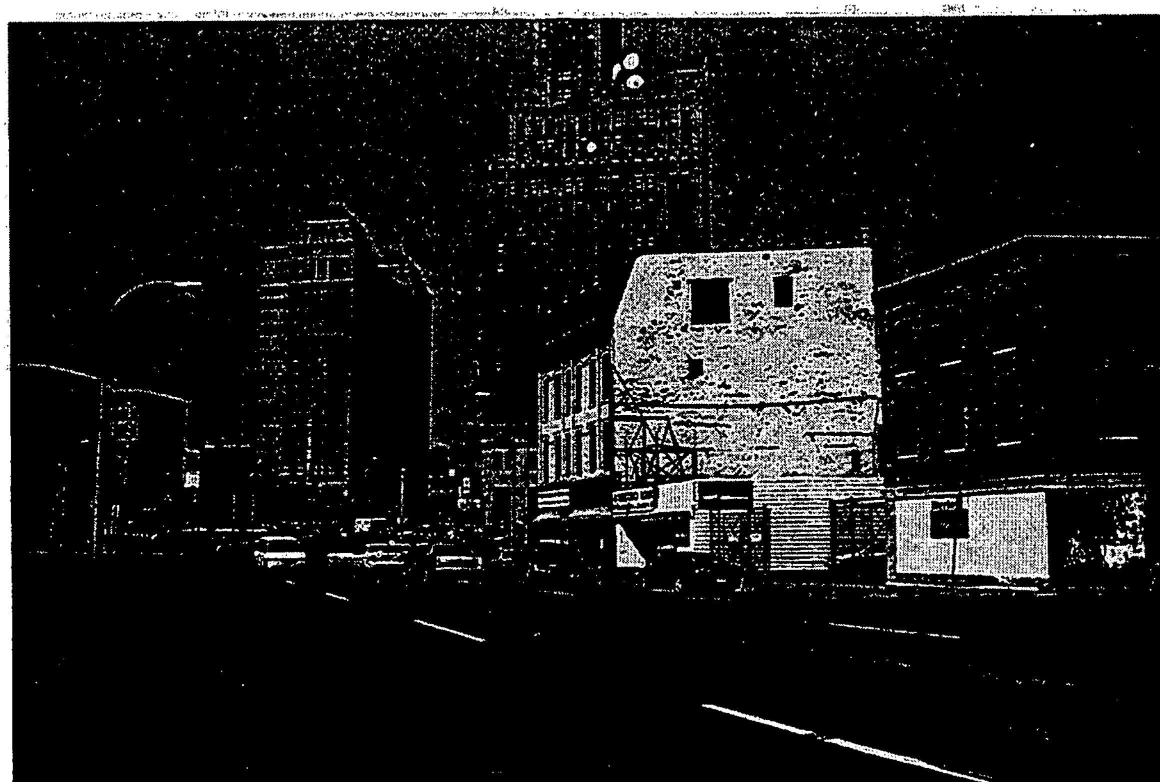


Photograph A-4. East Huron Street from Main Street with the Mohawk Site at right and the Niagara Mohawk Building to the left, facing east *(PCI 2001).*

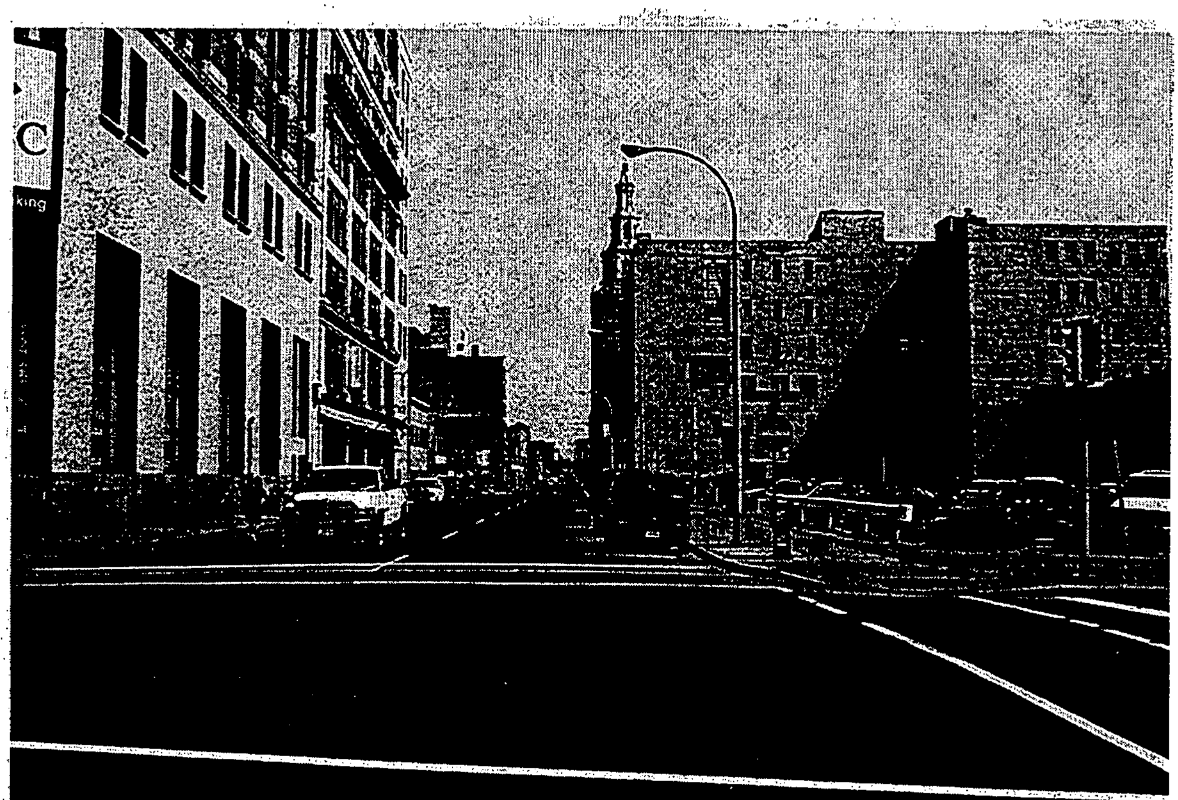


Photograph A-5. East Huron Street from east of Blossom Street, facing west *(PCI 2001).*

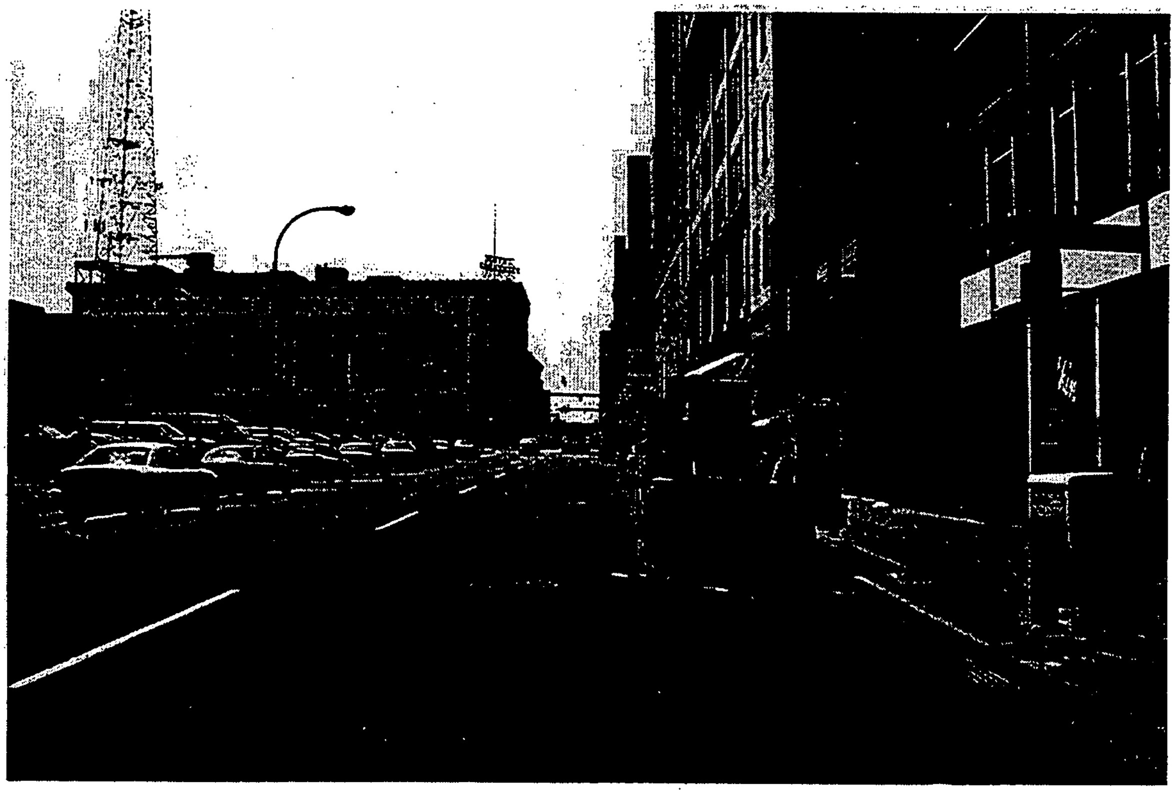
Photograph A-6. Broadway from Niagara Square showing Mohawk Site, facing east-northeast *(PCI 2001).*



Photograph A-7. Broadway from east of Blossom Street showing Lafayette Square in the distant left background, the Liberty Building at left, and the Rand Building in the center background, facing west *(PCI 2001)*.

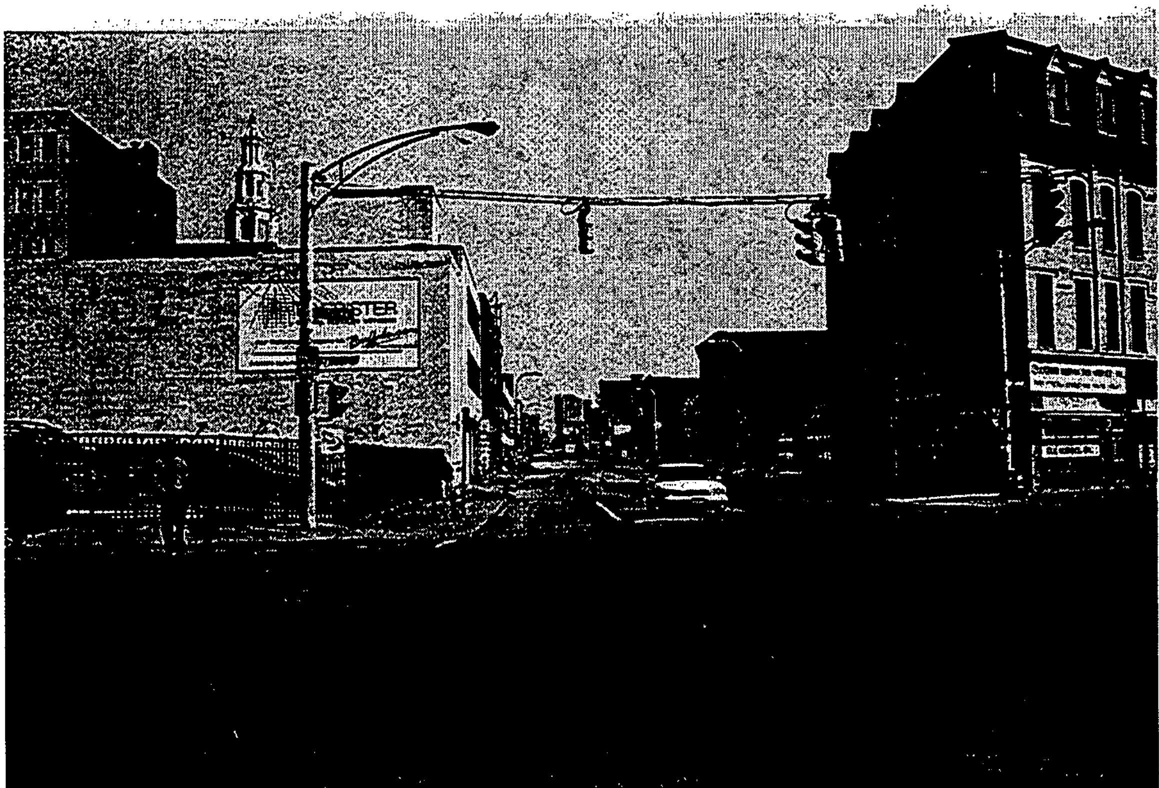


Photograph A-8. Washington Street from Broadway, facing north *(PCI 2001).*

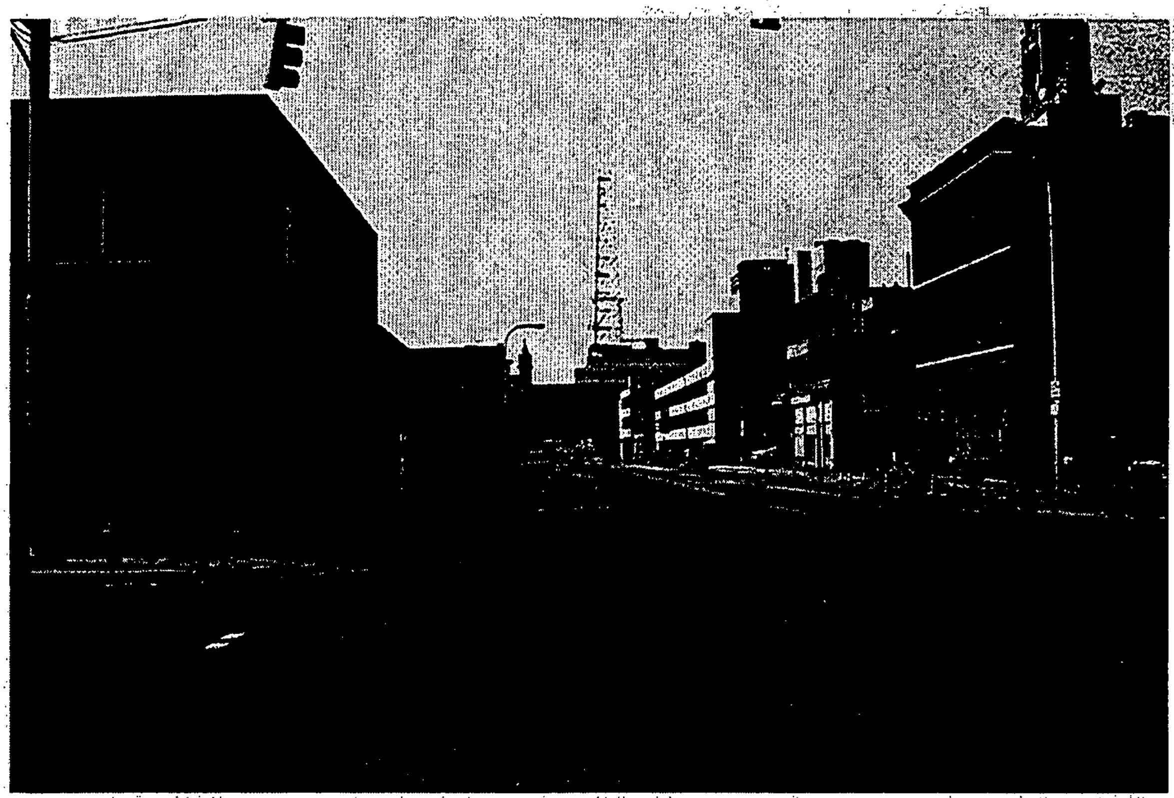


Photograph A-9. Washington Street from East Mohawk Place, facing south. Note the Buffalo and Erie County Public Library at the extreme left and the Hotel Lafayette in the left background *(PCI 2001).*

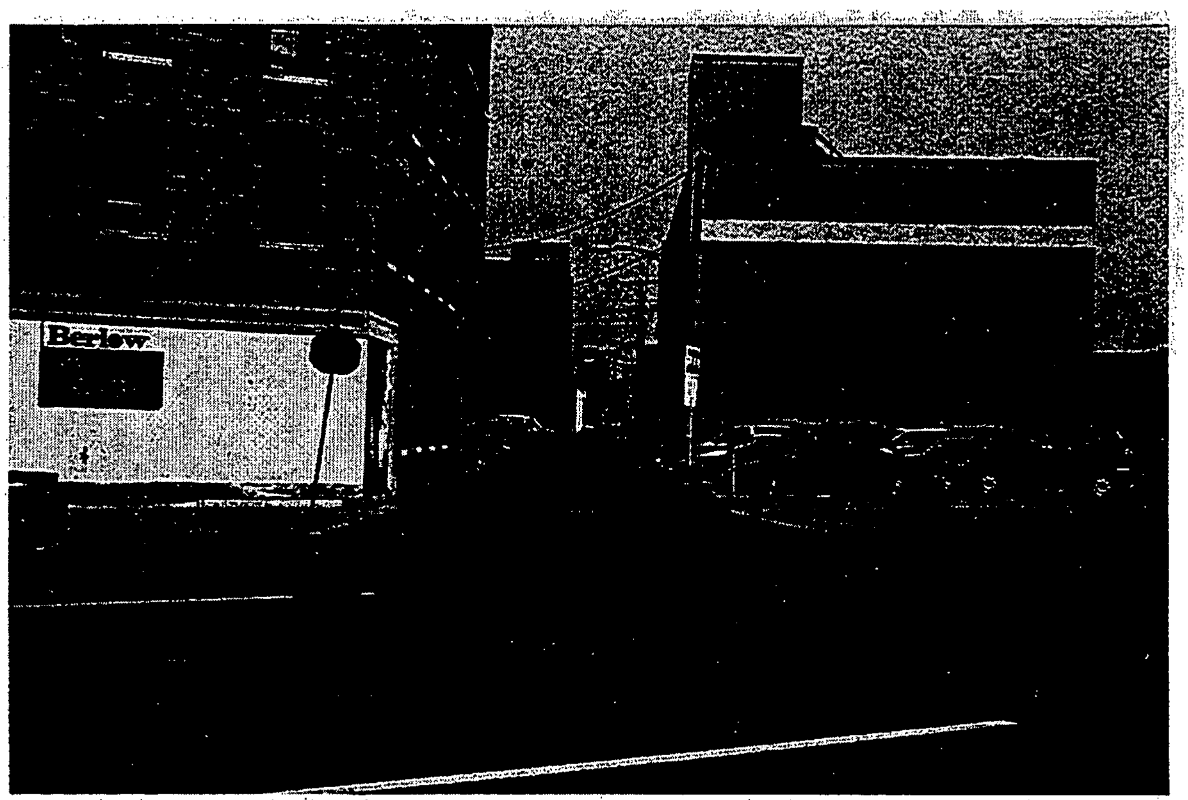
Photograph A-10. Washington Street from East Huron Street, facing south *(PCI 2001).*



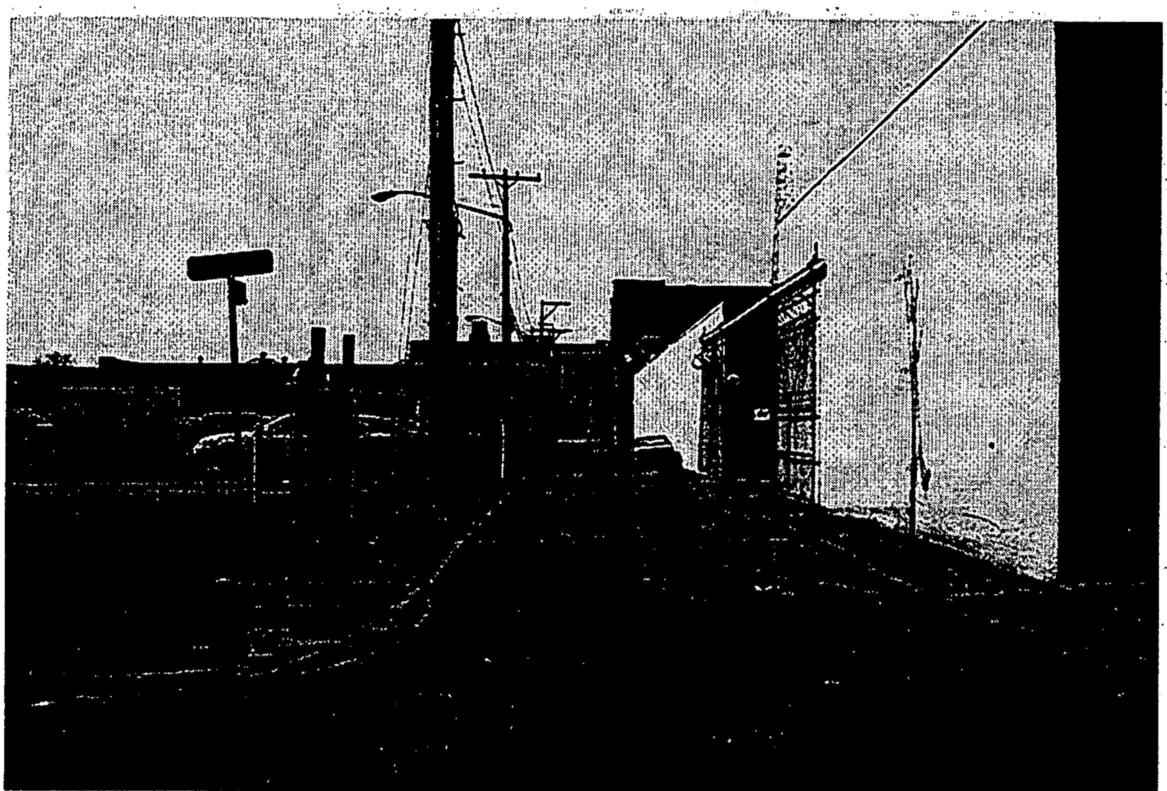
Photograph A-11. Ellicott Street from Broadway with 36 Broadway at right. Facing north *(PCI 2001).*



Photograph A-12. Ellicott Street from East Huron Street, facing south. Note Buffalo and Erie County Public Library over Ellicott Street in center background *(PCI 2001).*



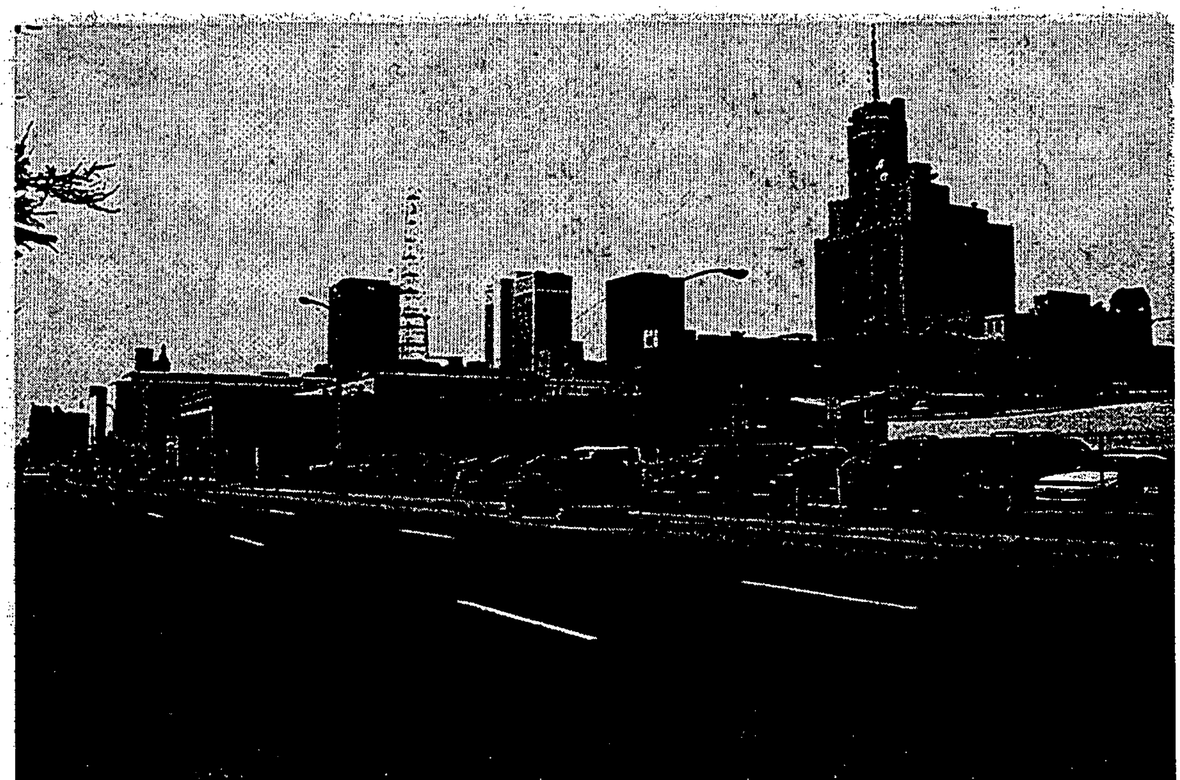
Photograph A-13. Blossom Street from Broadway, facing north *(PCI 2001).*



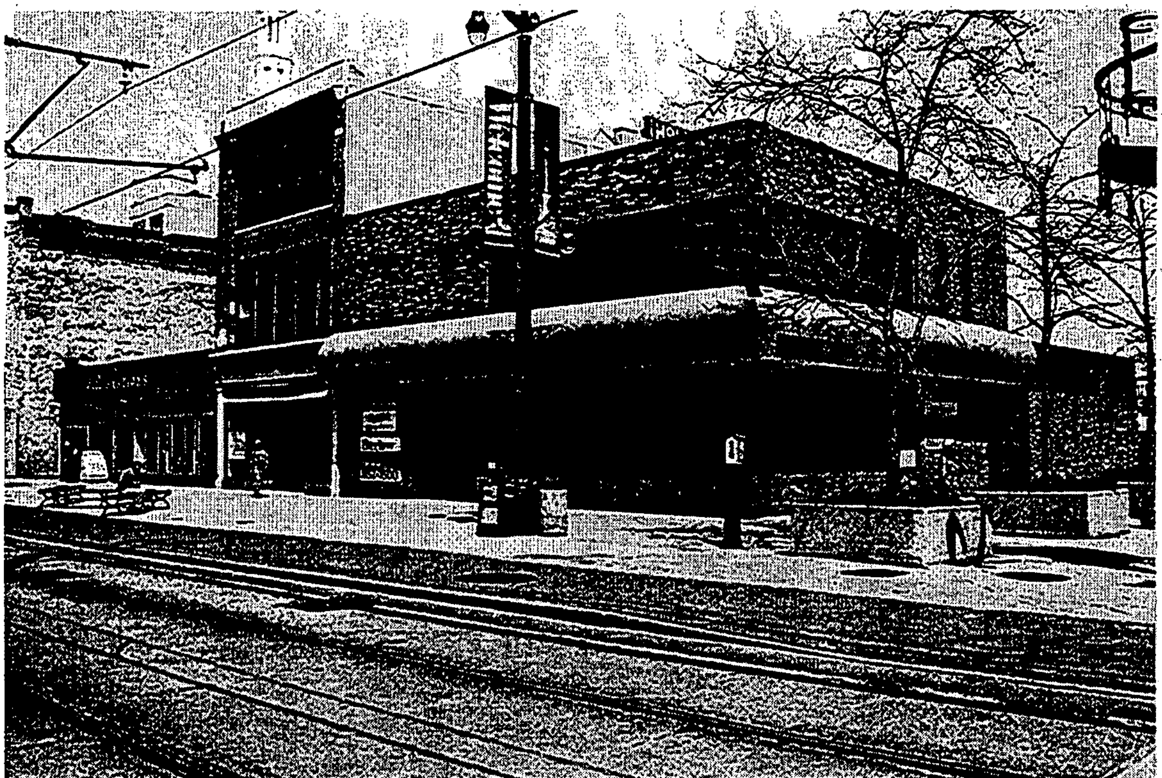
Photograph A-14. Blossom Street from East Huron, facing south *(PCI 2001).*

Photograph A-15. Oak Street from Broadway, facing north *(PCI 2001).*

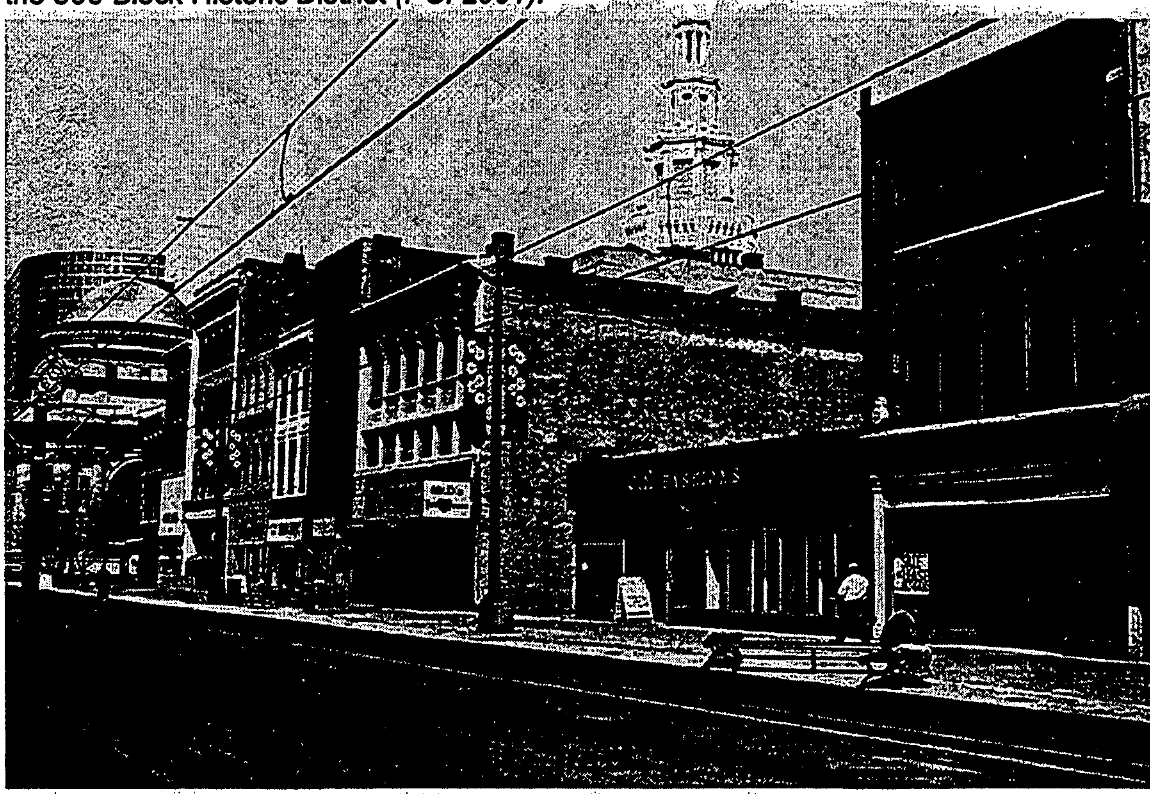
Photograph A-16. Hersee Alley from Oak Street, facing west *(PCI 2001).*



Photograph A-17. Oak Street from East Huron Street, facing south *(PCI 2001).*



Photograph A-18. West elevations of (from right to left) 495 Main Street, 501 Main Street and 505 Main Street, facing northeast. These properties are not eligible as part of the 500 Block Historic District *(PCI 2001).*



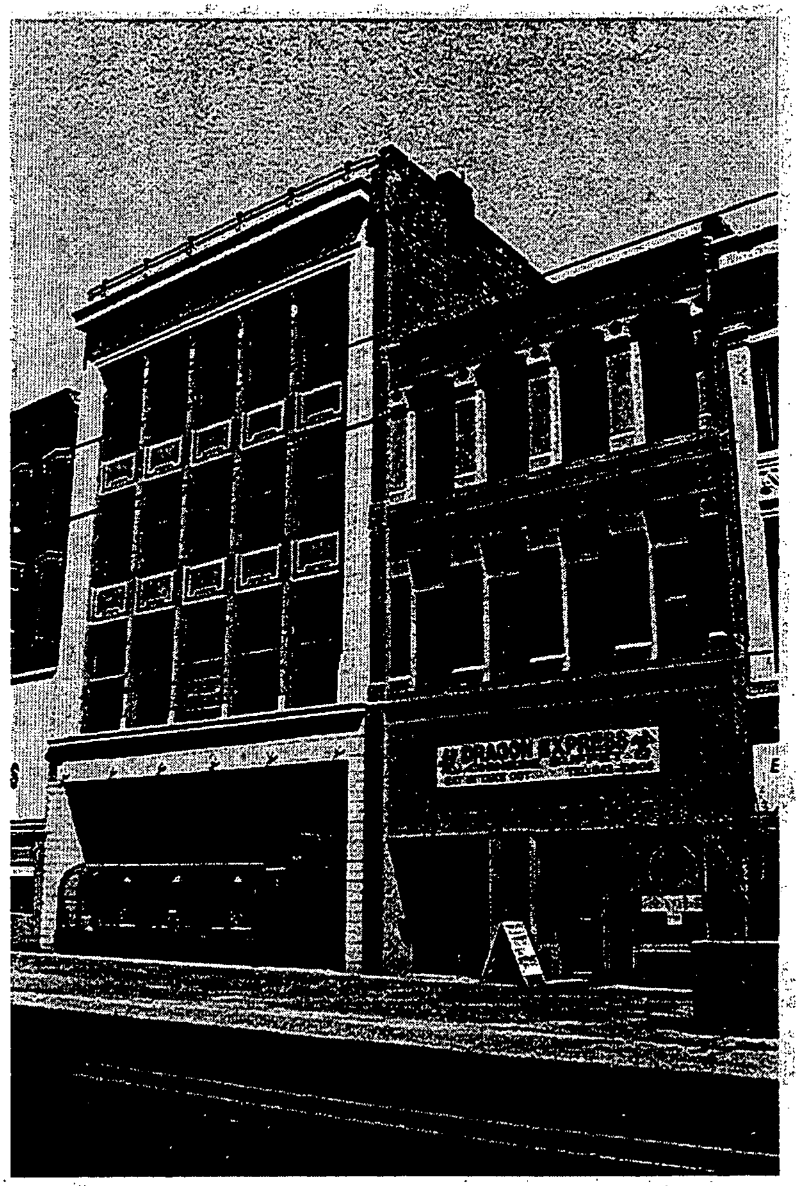
Photograph A-19. NRE 500 Block Historic District, from right to left: 501 through 537 Main Street, facing northeast *(PCI 2001).*

Photograph A-20. West elevation of 501 Main Street, facing east. This building is not eligible as part of the NRE 500 Block Historic District *(PCI 2001).*

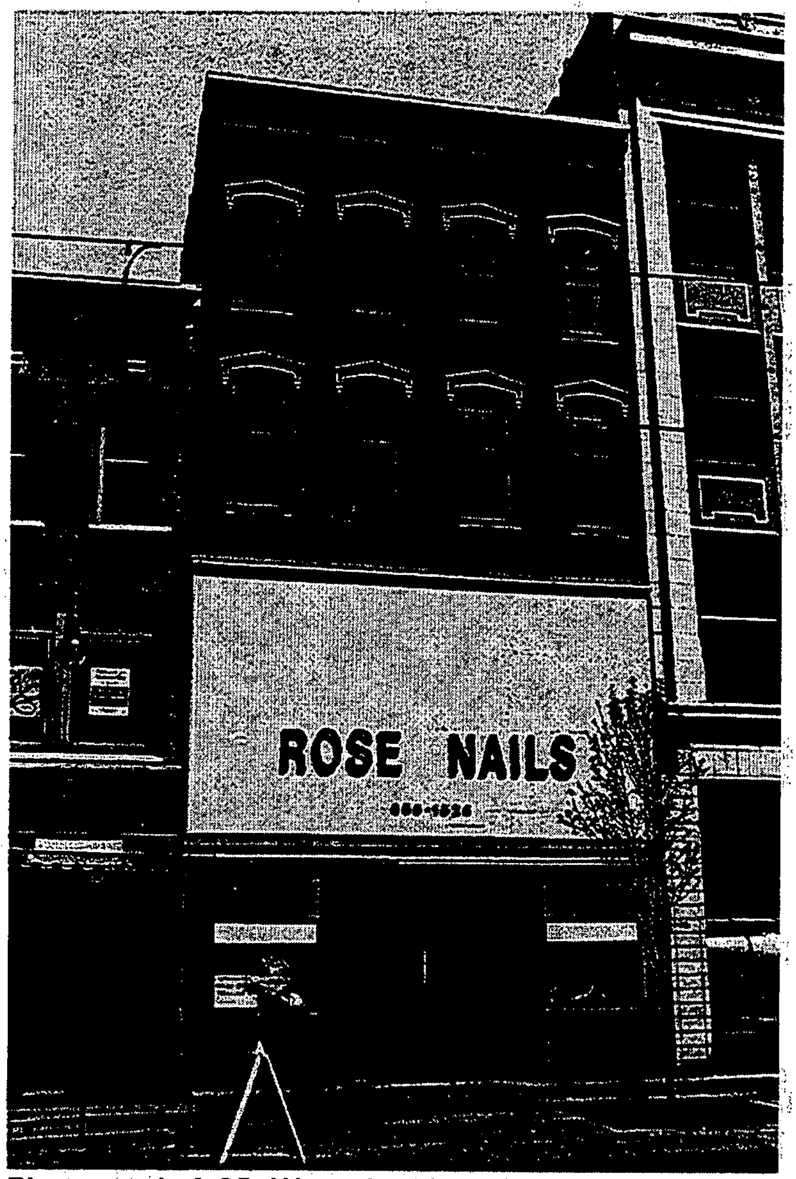
Photograph A-21. West and south elevations of 515-517 Main Street, a contributing component of the NRE 500 Block Historic District, facing northeast. Note vacant lot at right *(PCI 2001)*.

Photograph A-22. NRE 500 Block Historic District, from right to left: 521 through 537 Main Street, facing northeast *(PCI 2001)*.

Photograph A-23. West elevations of 521 Main Street, at right, and 523 Main Street, at left, facing east. The former is not eligible while the latter is a contributing component of the National Register eligible 500 Block Historic District *(PCI 2001).*

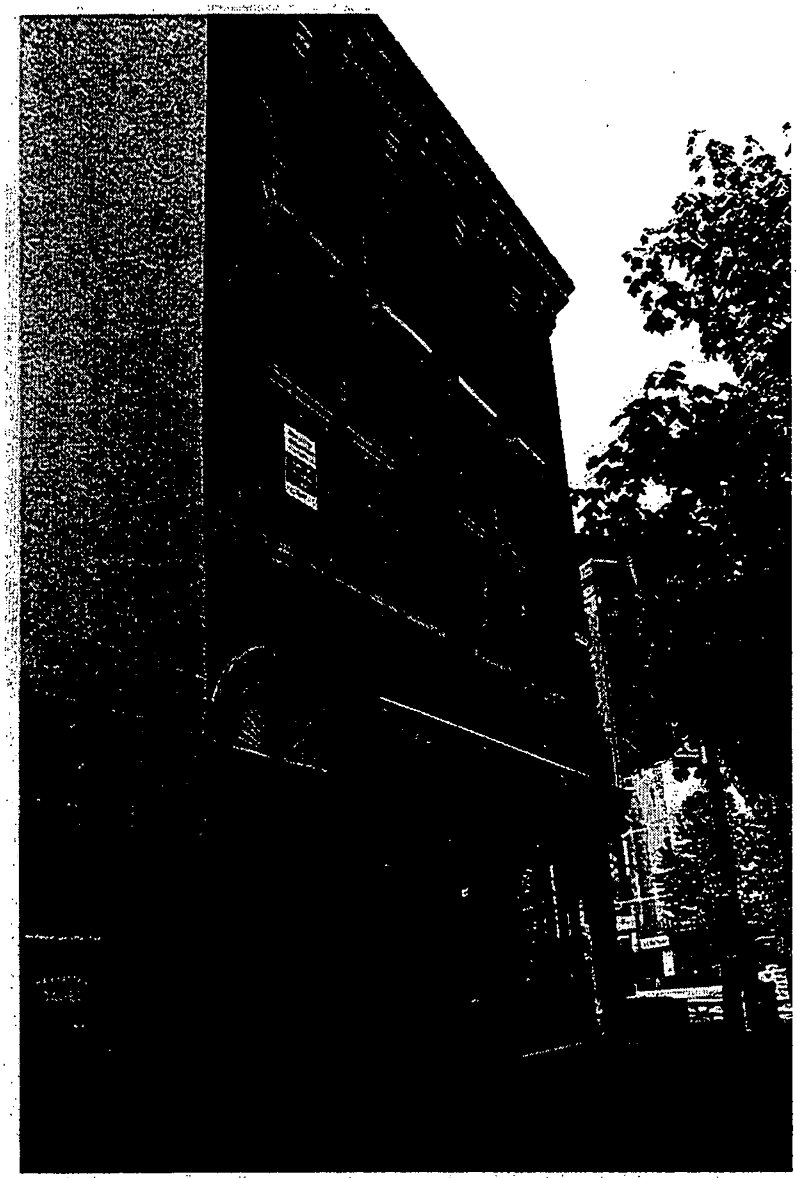


Photograph A-24. West elevations of 525 Main Street, at right, and 529 Main Street, at left, facing northeast. Both properties are contributing components of the National Register eligible 500 Block Historic District *(PCI 2001).*



Photograph A-25. West elevation of 535 Main Street, a contributing component of the National Register eligible 500 Block Historic District, facing east *(PCI 2001).*

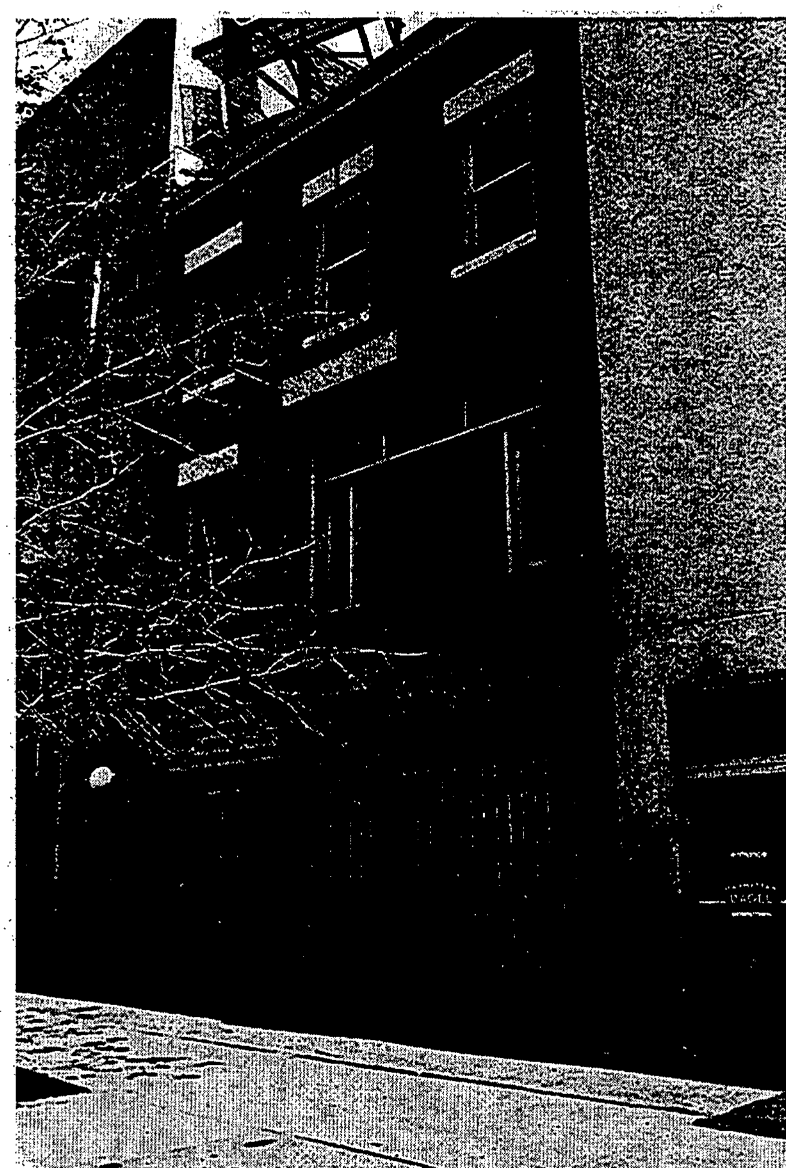
Photograph A-26. North and west elevations of 537 Main Street, a contributing component of the National Register eligible 500 Block Historic District, facing southeast *(PCI 2001).*



Photograph A-27. Genesee Street Elevation of 537 Main Street, facing west *(PCI 2001).*

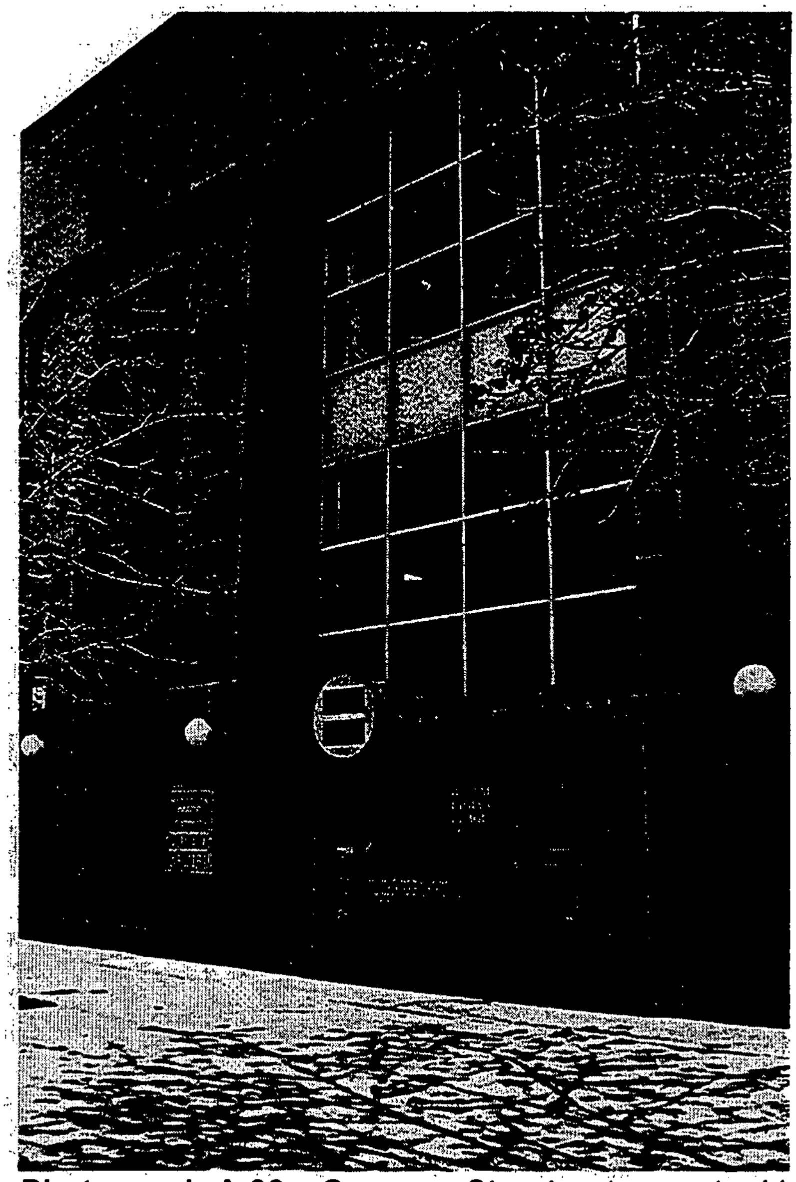
Photograph A-28. Theodore Roosevelt Plaza and properties fronting East Genesee Street, facing southeast *(PCI 2001).*

Photograph A-29. North elevation of 5-7 Genesee Street, facing south. This property is not eligible as part of the National Register eligible 500 Block Historic District *(PCI 2001).*

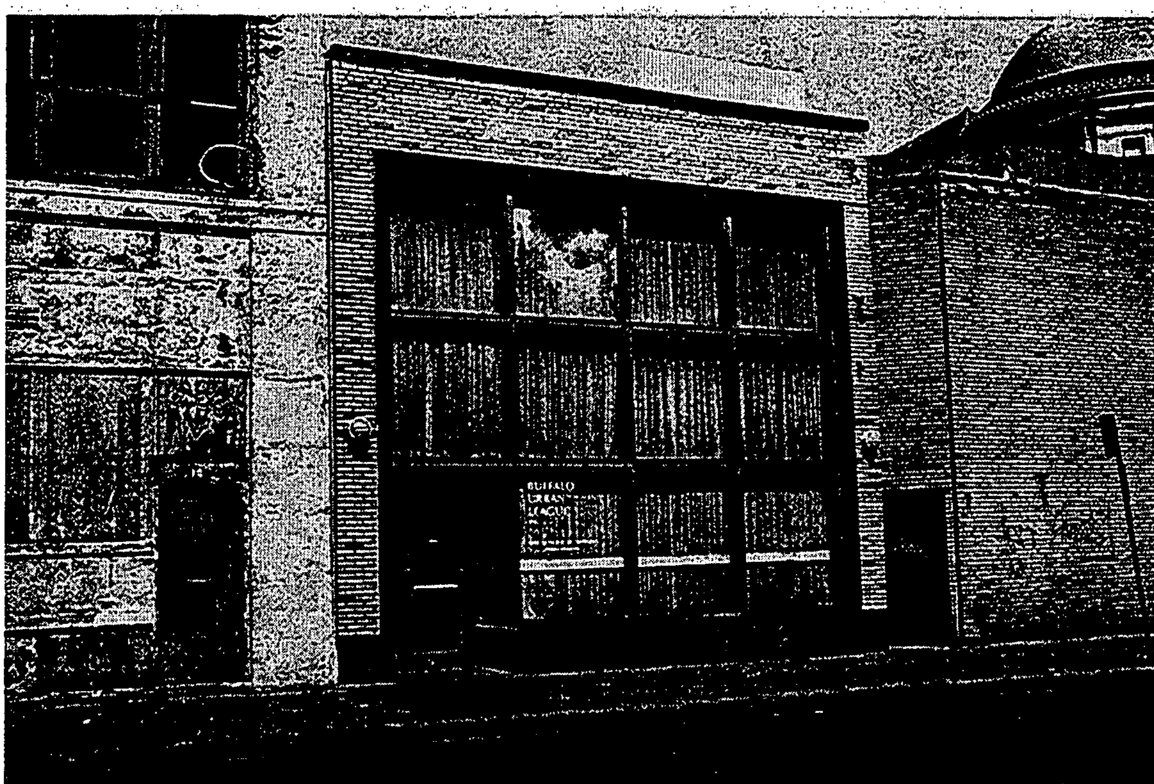


Photograph A-30. North elevation of 9 Genesee Street, facing southeast. This property is not eligible as part of the National Register eligible 500 Block Historic District *(PCI 2001).*

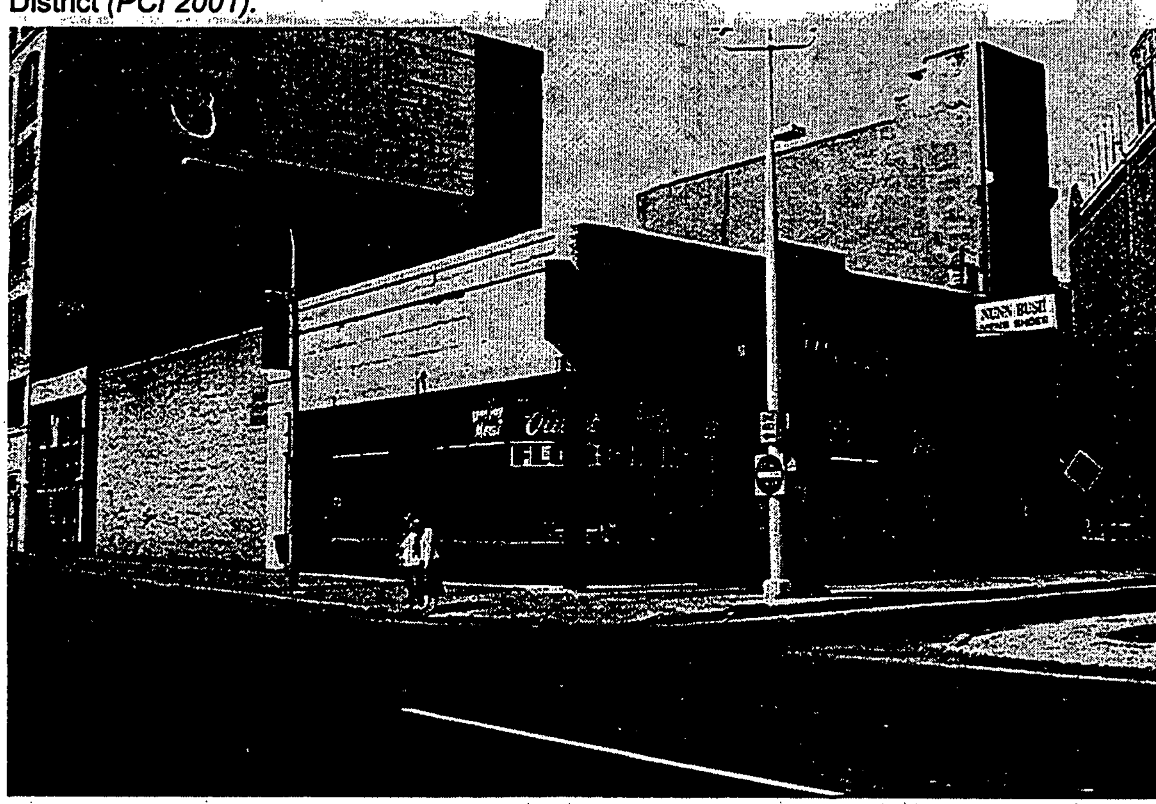
Photograph A-31. North elevation of 11 Genesee Street, facing southeast. This property was initially not eligible as part of the NRE 500 Block Historic District. In 1993, the ineligible determination for the building remained due to insufficient information provided for evaluation *(PCI 2001)*.



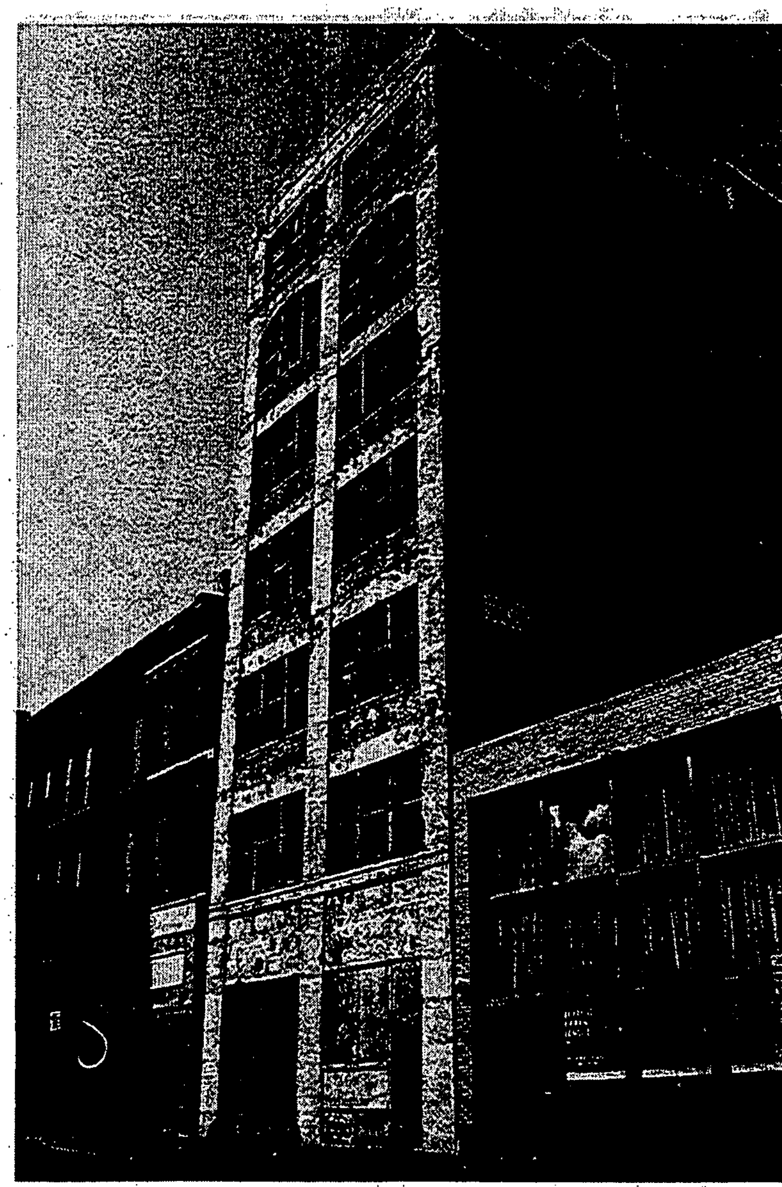
Photograph A-32. Genesee Street entrance to 11 Genesee Street, facing southeast. This property is not eligible as part of the NRE 500 Block Historic District *(PCI 2001).*



Photograph A-33. Washington Street elevation of 11 Genesee Street, facing west. The frontage on Washington Street is not eligible as part of the NRE 500 Block Historic District *(PCI 2001).*

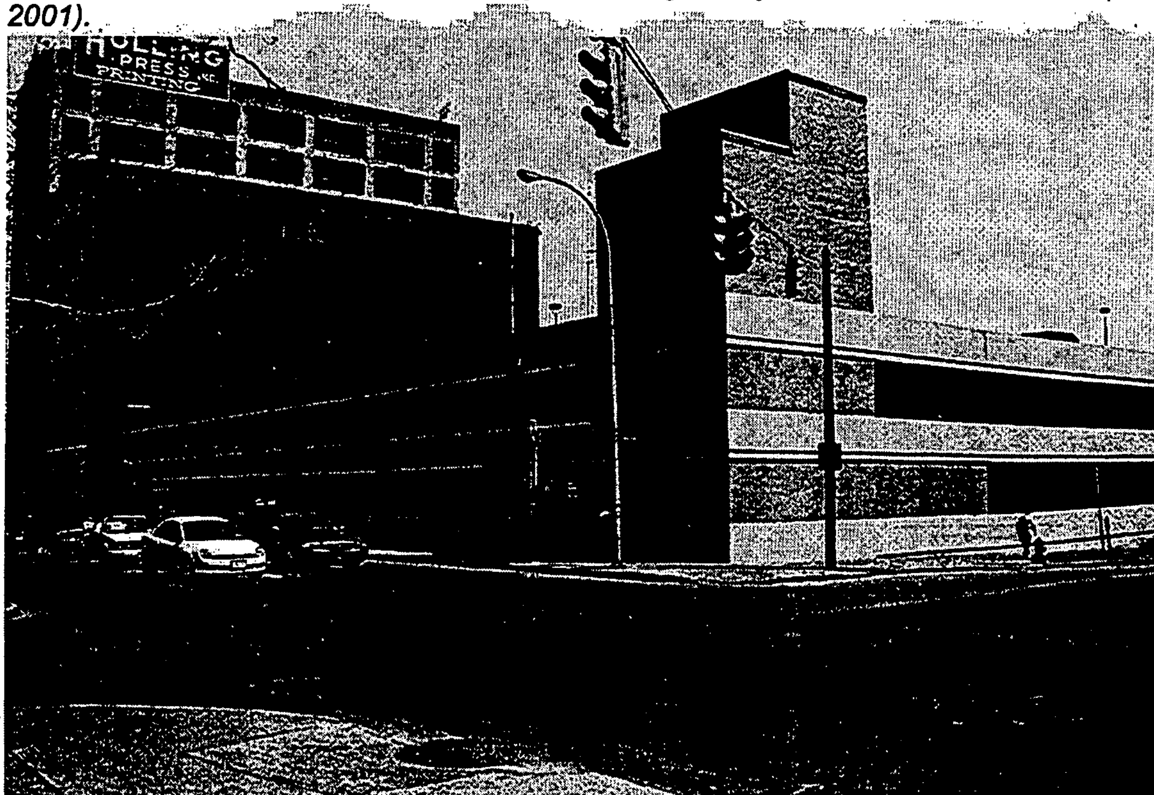


Photograph A-34. East and north elevations of Howard's Shoes at 5 East Huron, facing southwest. Due to extensive alterations, 5 East Huron is not eligible as part of the NRE 500 Block Historic District *(PCI 2001).*

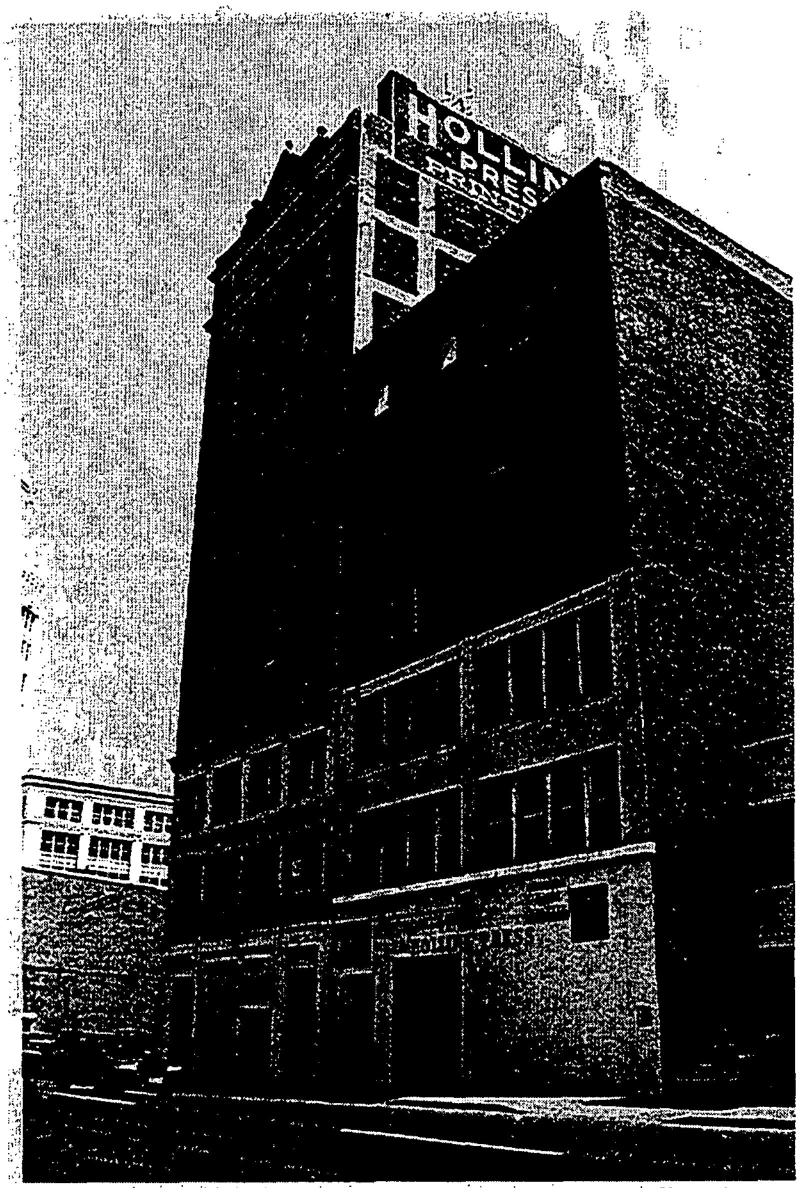


Photograph A-35. East elevation of 510 Washington Street, facing southwest. This seven-story concrete frame loft building is not eligible as part of the non-contributing component of the NRE 500 Block Historic District *(PCI 2001).*

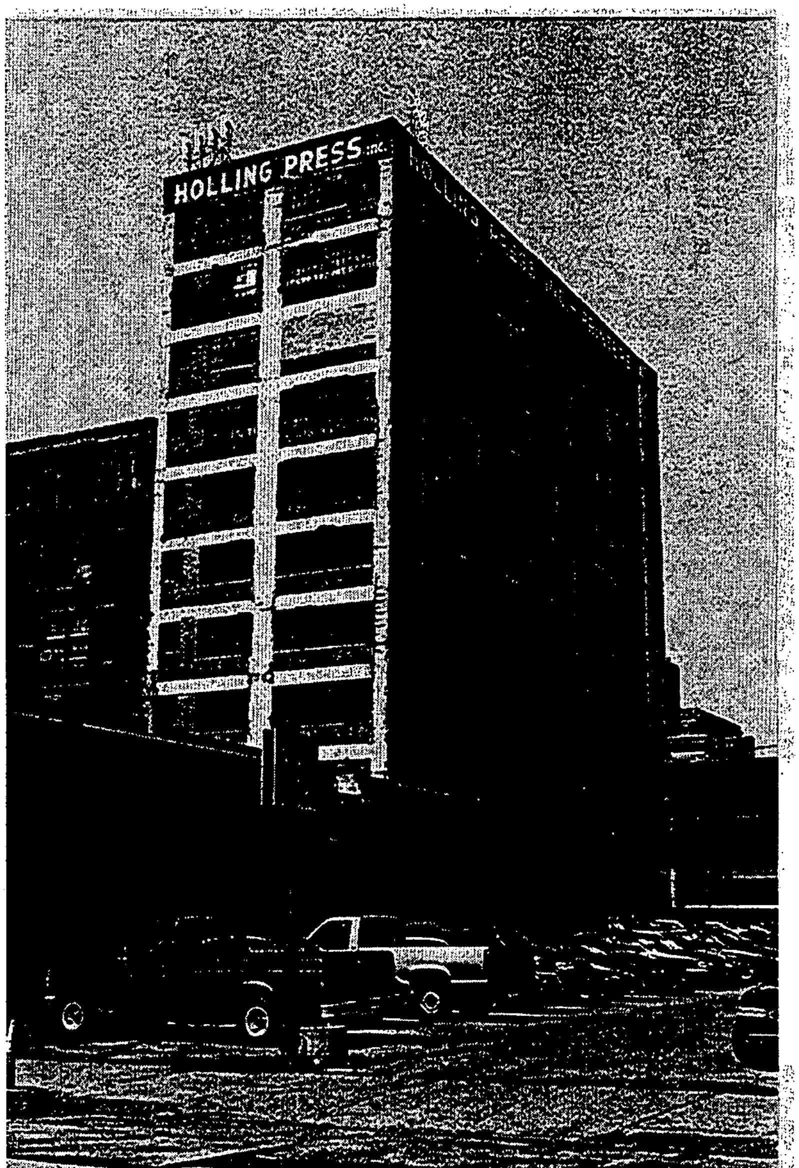
Photograph A-36. North and west elevations of 465 Washington Street (ca.1909-1911), facing southeast. Originally known as the Sinclair Building, then the Remington-Rand Building, this commercial office building was designed by Esenwein and Johnson *(PCI 2001).*



Photograph A-37. The Mohawk Parking Ramp (ca. 1955) at 477 Washington Street, facing northeast. Note Holling Press Building to the left *(PCI 2001).*

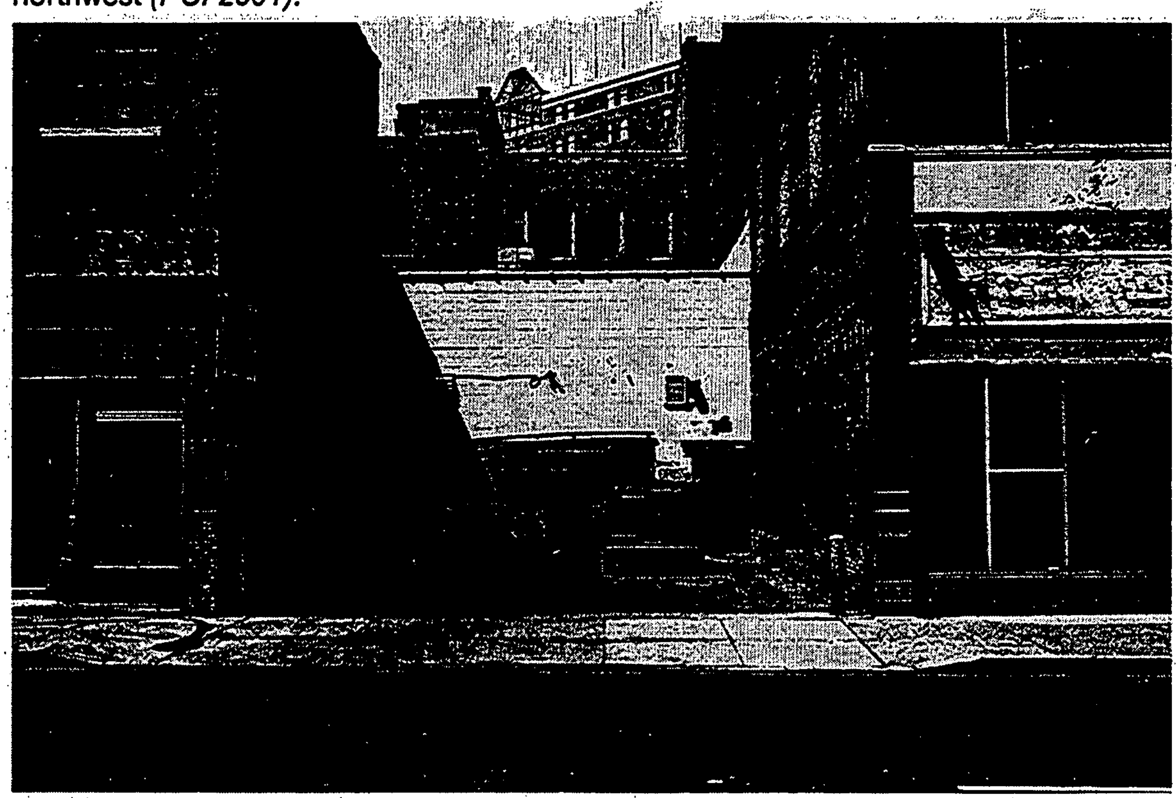


Photograph A-38. West elevations of the Holling Press Printing Company complex located at 499 -501 Washington Street, facing northeast. The ten-story concrete frame building to the left is the original Holling Press Building, also known as the Washington Building. *(PCI 2001).*



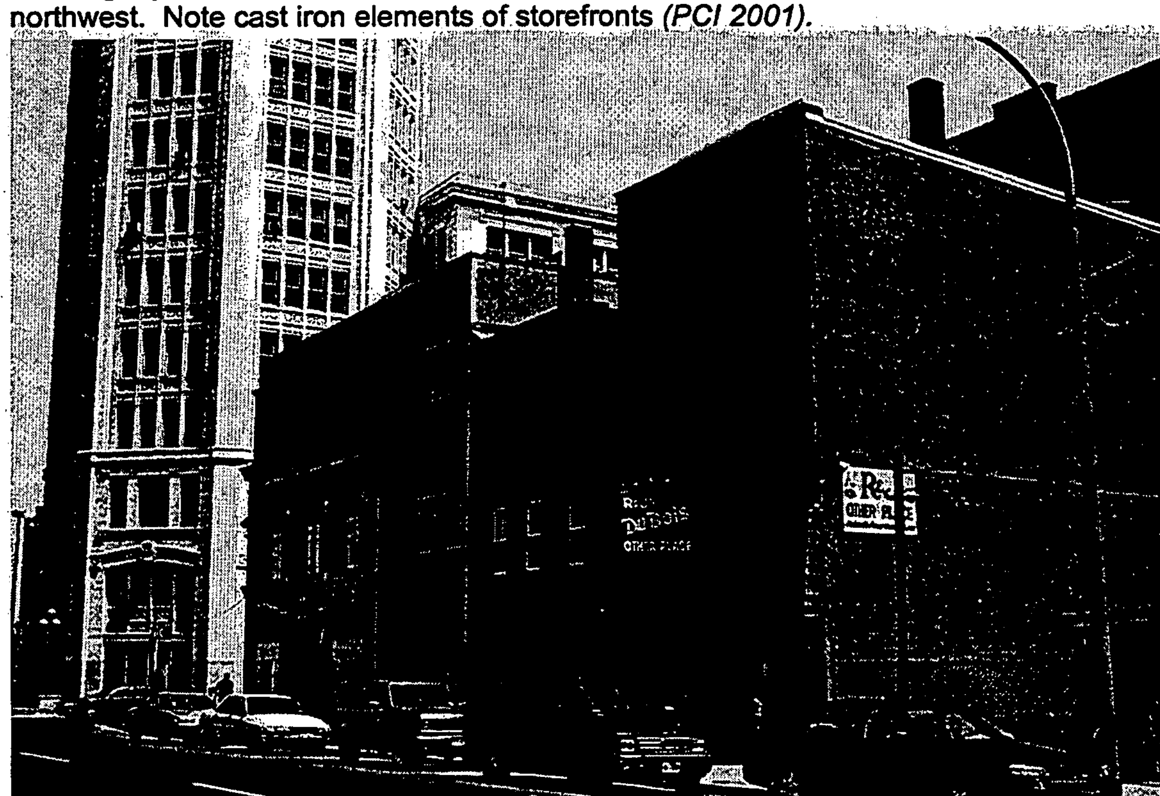
Photograph A-39. Rear and north elevations of 501 Washington Street, facing southwest *(PCI 2001).*

Photograph A-40. South and east elevations of 500 Washington Street, facing northwest *(PCI 2001).*



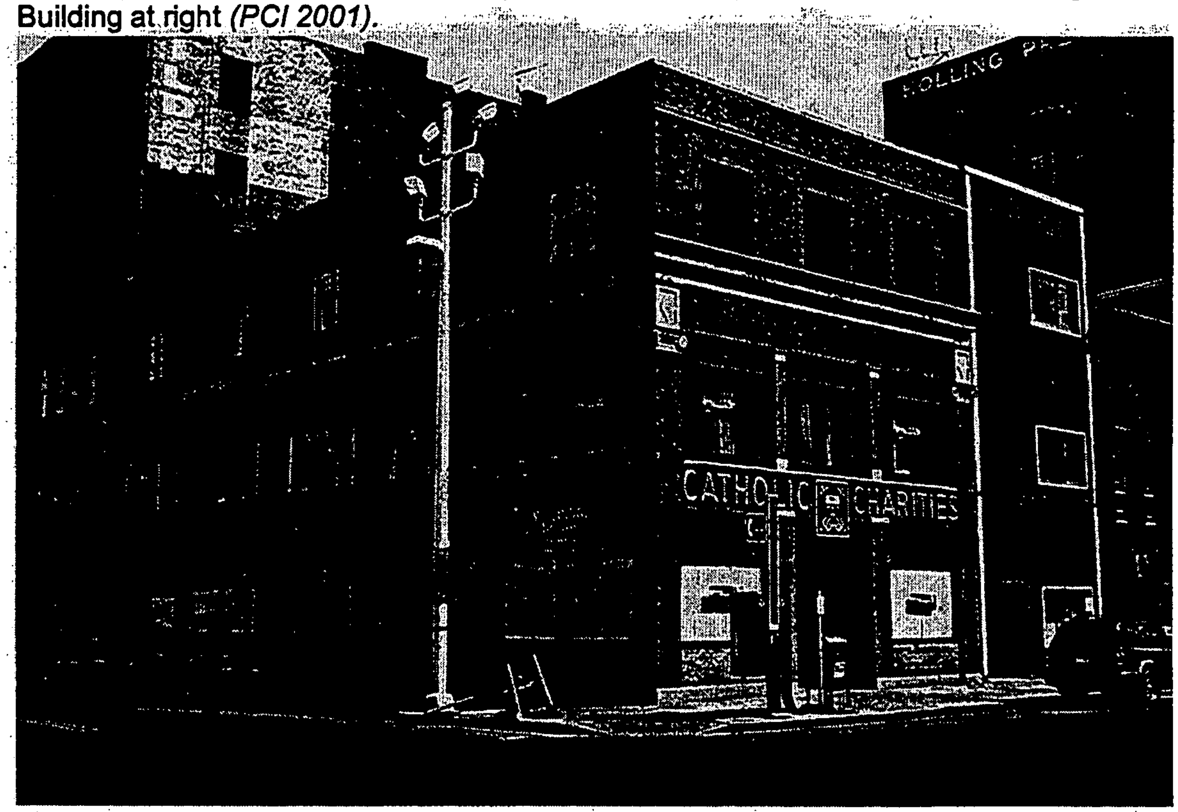
Photograph A-41. East elevation of 502 Washington Street, facing west *(PCI 2001).*

Photograph A-42. South and east elevation of 504 Washington Street, facing northwest. Note cast iron elements of storefronts *(PCI 2001).*

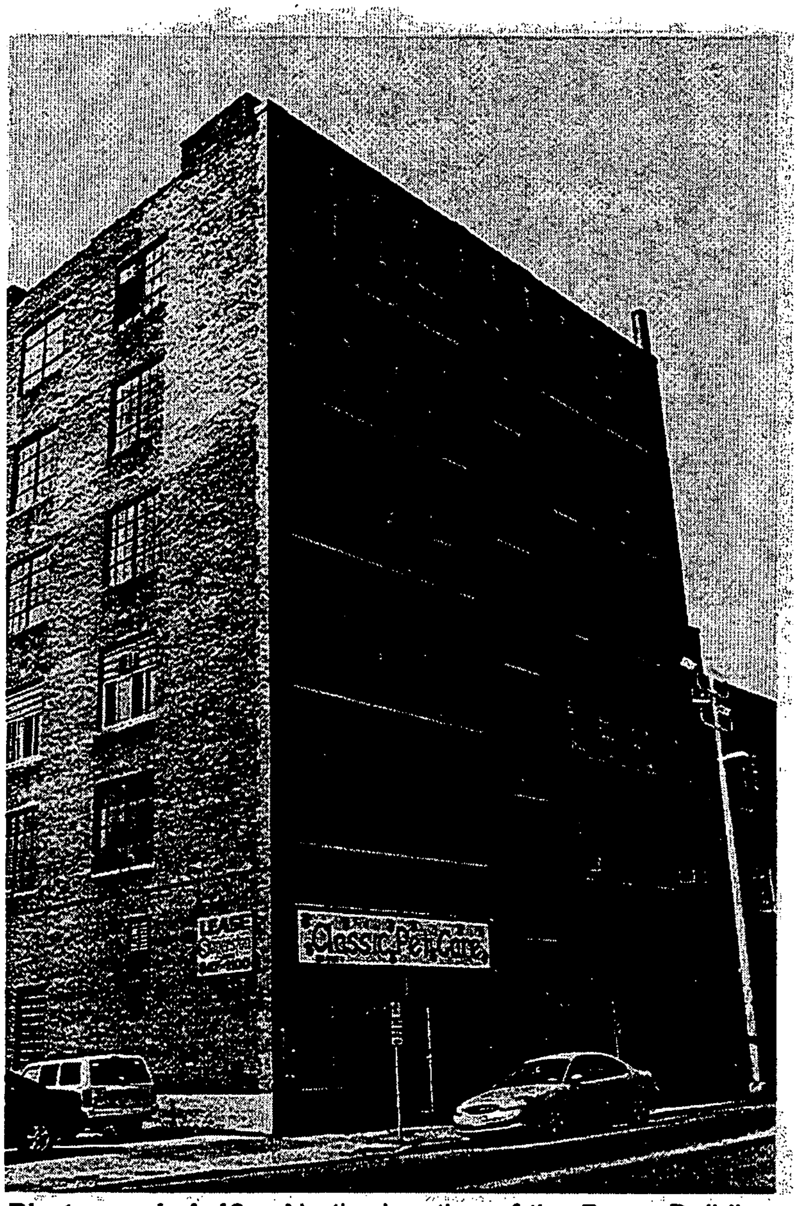


Photograph A-43. West elevations of 517-525 Washington Street (right to left), facing northeast. Note Niagara Mohawk Building at left *(PCI 2001).*

Photograph A-44. West elevations of (right to left): 517 Washington Street, 519 Washington Street and 525 Washington Street, facing southeast. Note Holling Press Building at right *(PCI 2001).*



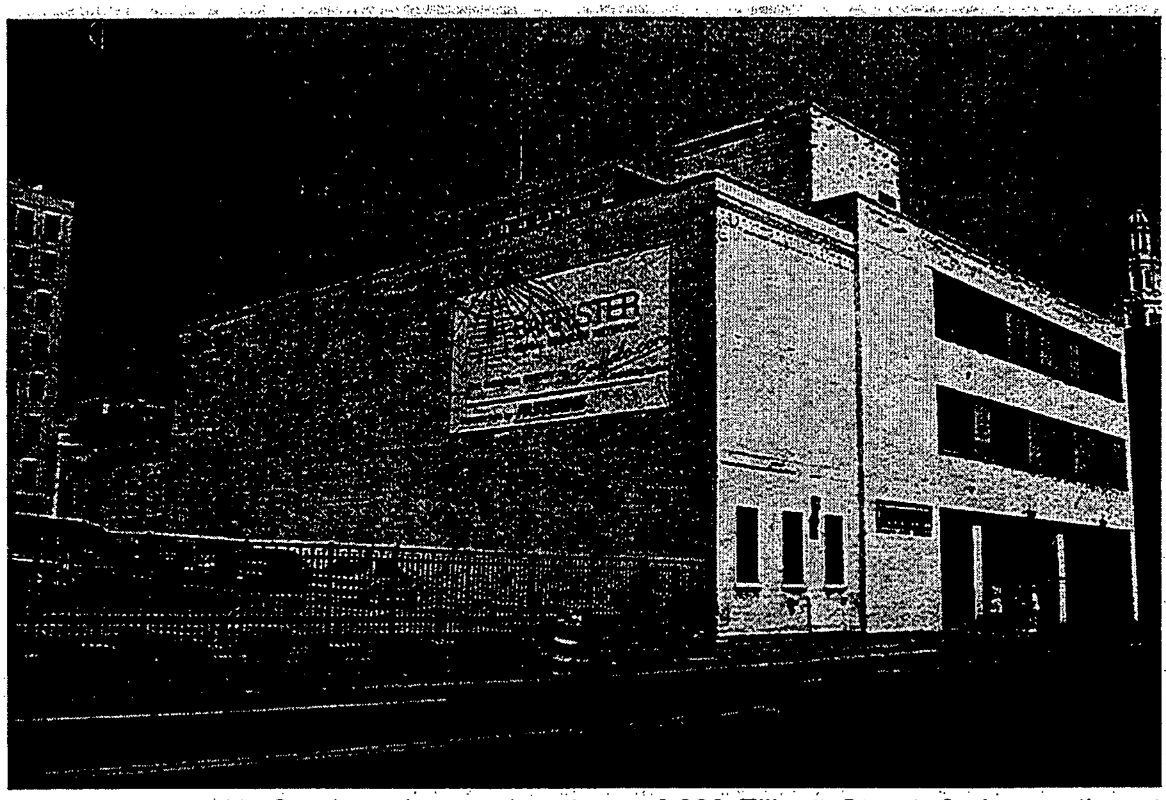
Photograph A-45. Catholic Charities Building located at 525 Washington Street, facing southeast. Note frontage on East Huron Street *(PCI 2001).*



Photograph A-46. North elevation of the Burns Building at 25 East Huron Street, facing southwest *(PCI 2001).*

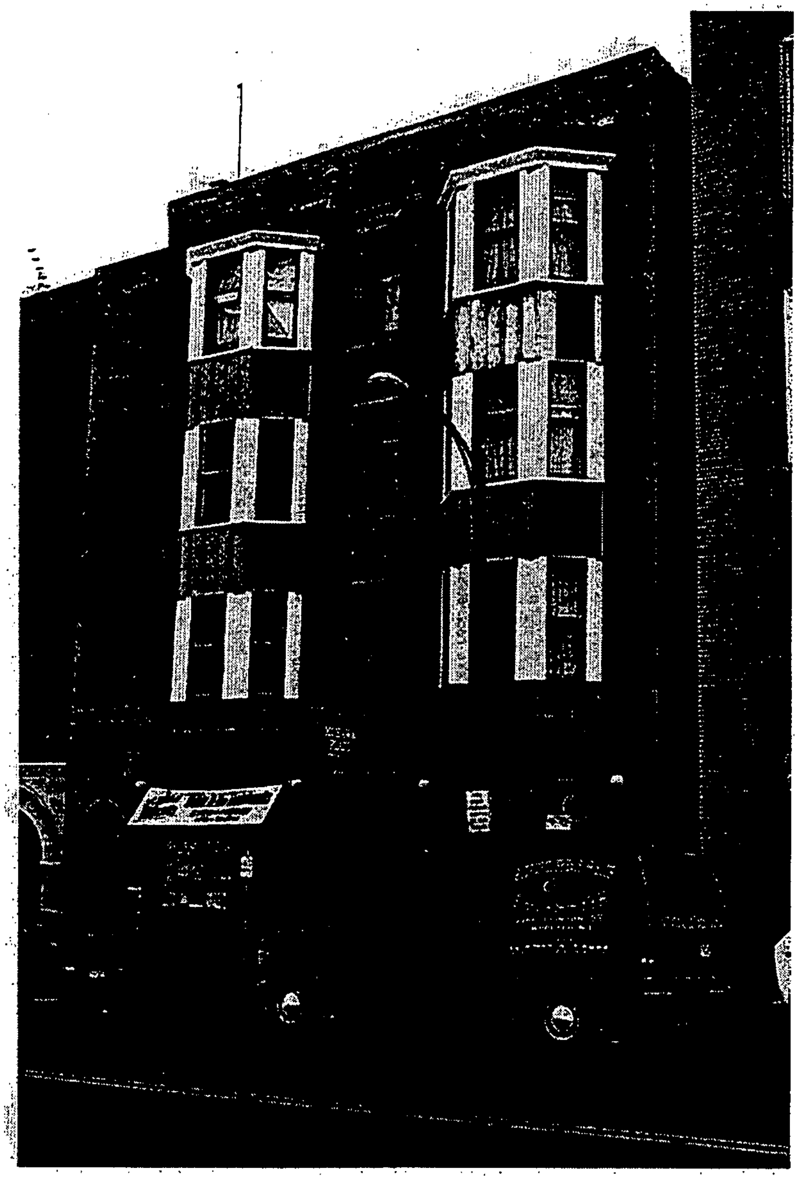
Photograph A-47. West and north elevations of Burns Building at 25 East Huron Street, facing southwest. Note Holling Press Building to the left *(PCI 2001).*

Photograph A-48. West elevation of 285 Ellicott Street, facing east. Note section of 36 Broadway at right *(PCI 2001).*



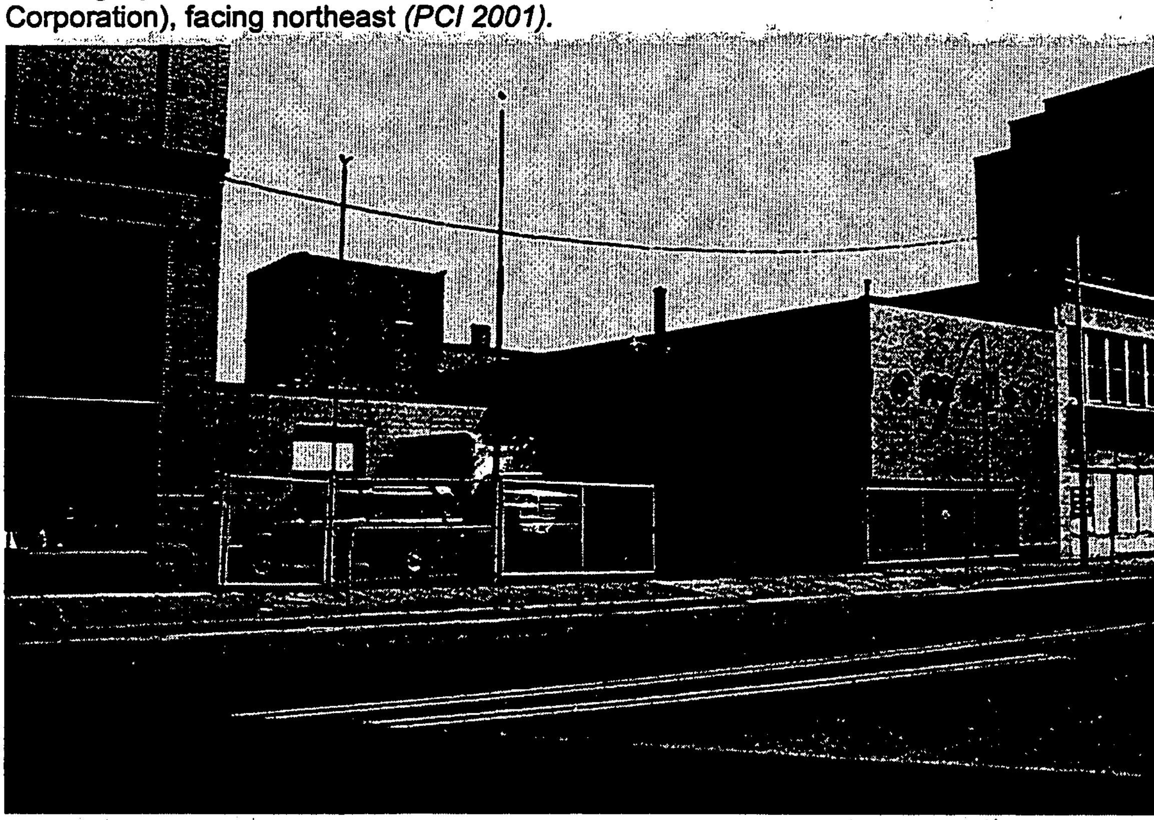
Photograph A-49. South and east elevations of 290 Ellicott Street, facing northwest *(PCI 2001).*

Photograph A-50. West and north elevations of 300 Ellicott, facing southwest. Note south side of East Mohawk Street with the north elevations of 47 East Mohawk and 465 Washington Street to the right *(PCI 2001).*



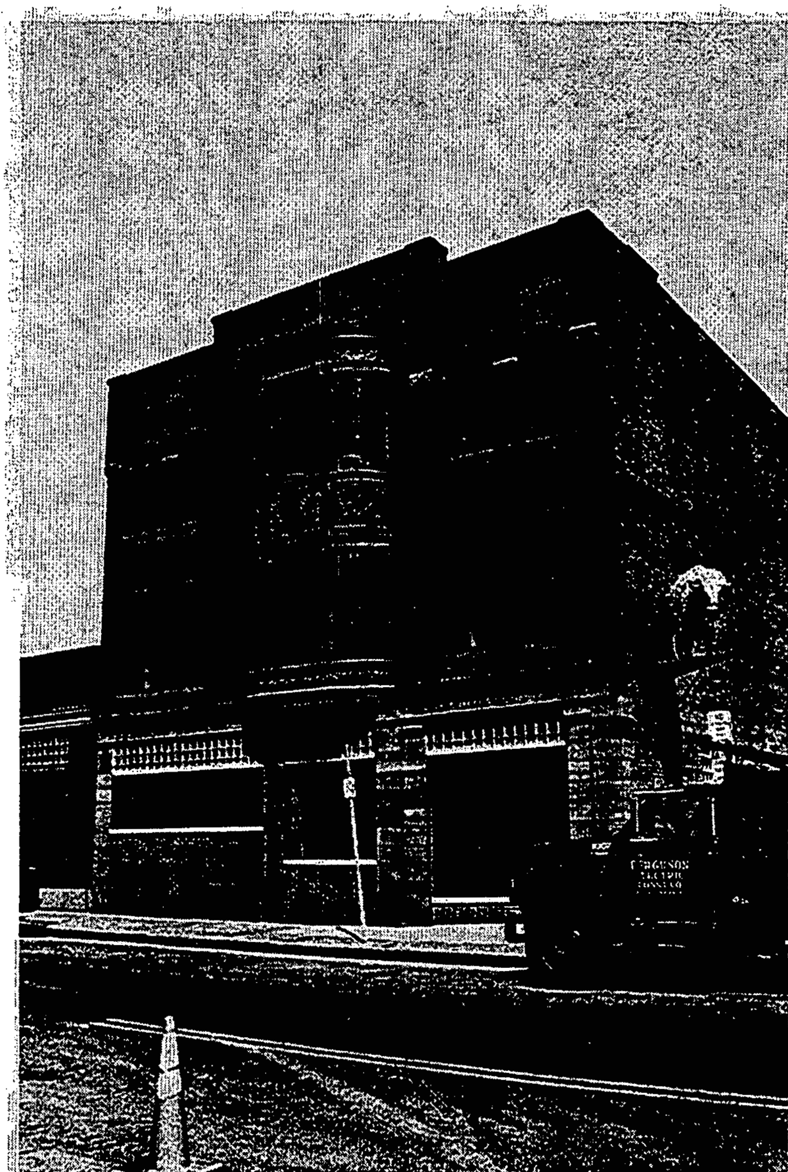
Photograph A-51. North Elevation of 47 Mohawk Place, facing south-southeast *(PCI 2001).*

Photograph A-52. West and south elevations of 301 Ellicott Street (The Emulso Corporation), facing northeast *(PCI 2001).*



Photograph A-53. The Emulso Corporation complex at 301 Ellicott Street, facing southeast *(PCI 2001).*

Photograph A-54. North and west elevations of 303 Ellicott Street, facing southeast *(PCI 2001).*

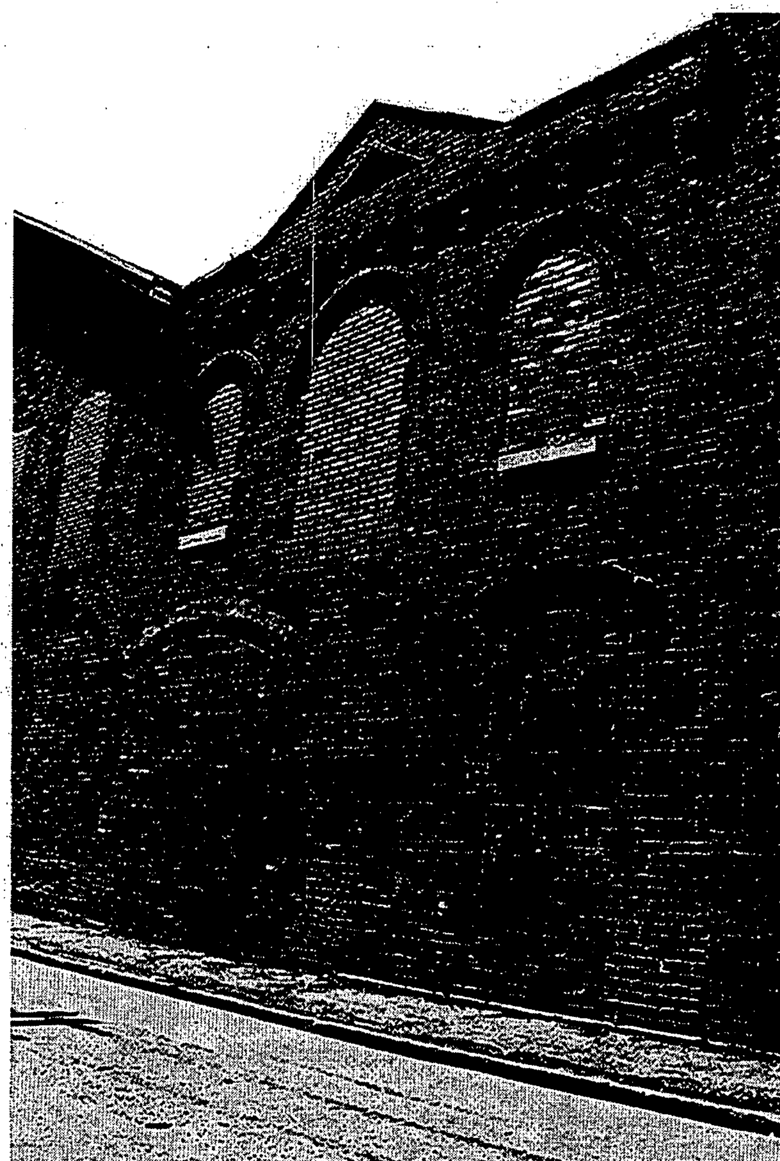


Photograph A-55. West elevation of 317 Ellicott Street, Ferguson Electric complex, facing northeast *(PCI 2001).*

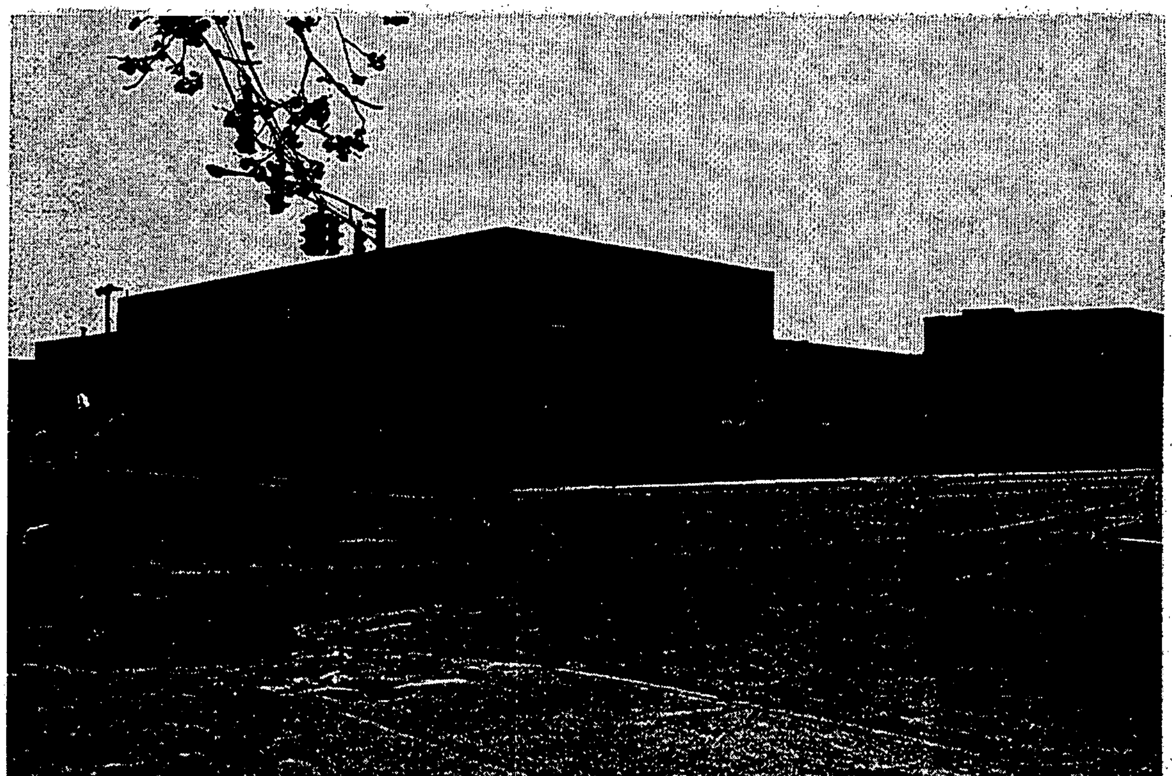
Photograph A-56. West elevation of 321 Ellicott Street, Ferguson Electric complex, facing northeast *(PCI 2001).*

Photograph A-57. South and east elevations of 317 Ellicott Street or 6 Blossom Street, facing northwest. This former stable was constructed in the Italianate style and now serves as a service building for Ferguson Electric *(PCI 2001).*

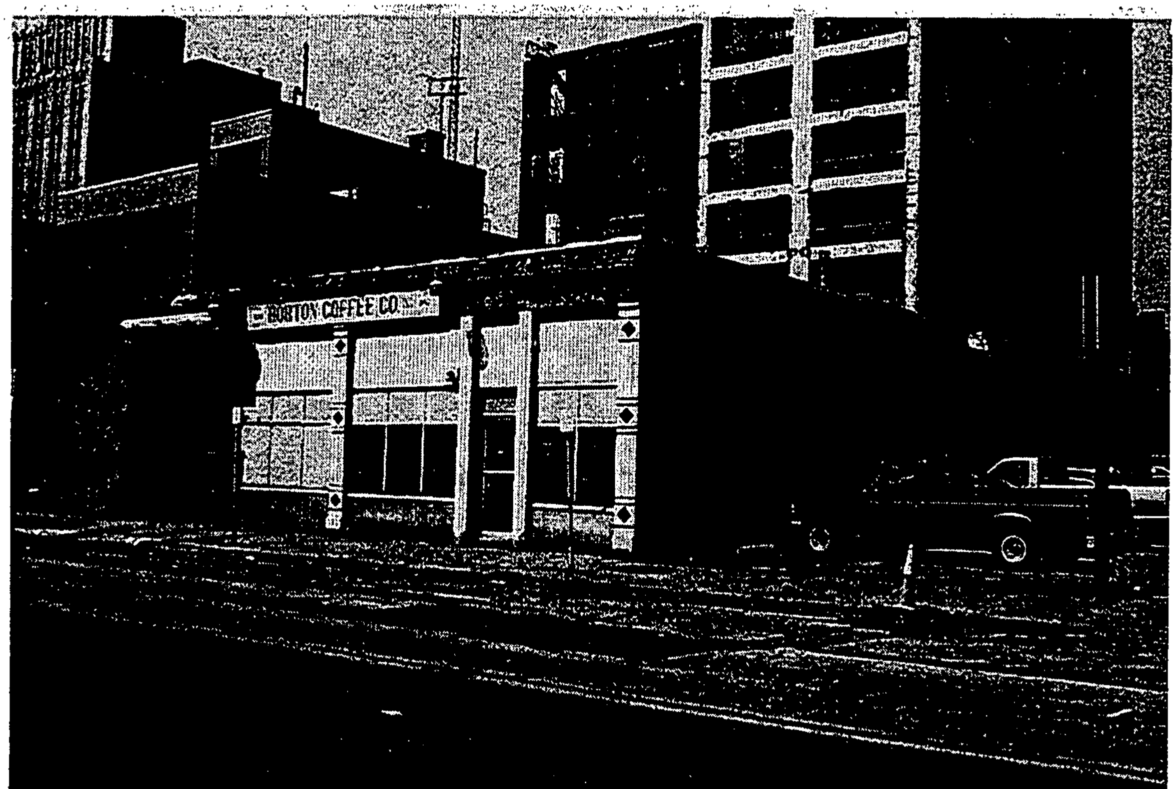
Photograph A-58. Blossom Street elevations of the Ferguson Electric buildings, facing southwest *(PCI 2001).*


Photograph A-59. Detail of Blossom Street elevation, Ferguson Electric complex, facing southwest *(PCI 2001).*

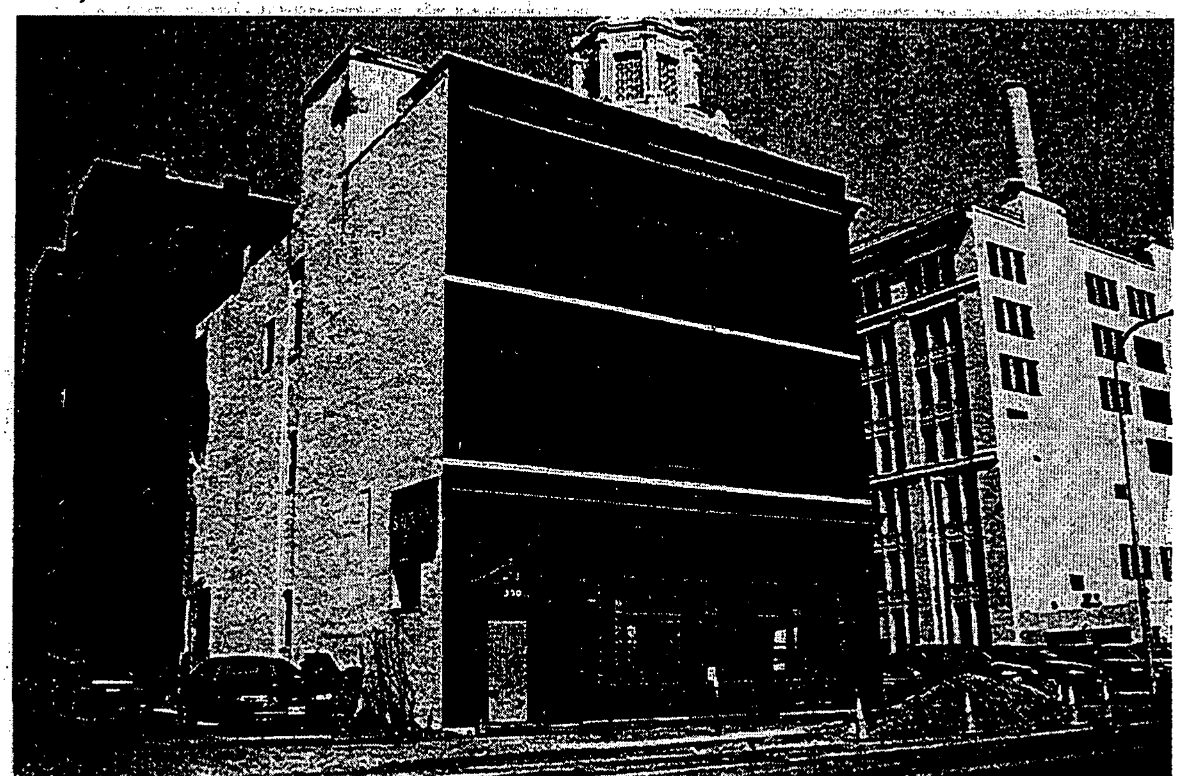
Photograph A-60. East elevation of 332 Ellicott Street, facing west-northwest *(PCI 2001).*



Photograph A-61. North and west elevations of 337 Ellicott Street, facing southeast *(PCI 2001).*



Photograph A-62. East elevation of 338-340 Ellicott Street, facing southwest *(PCI 2001).*



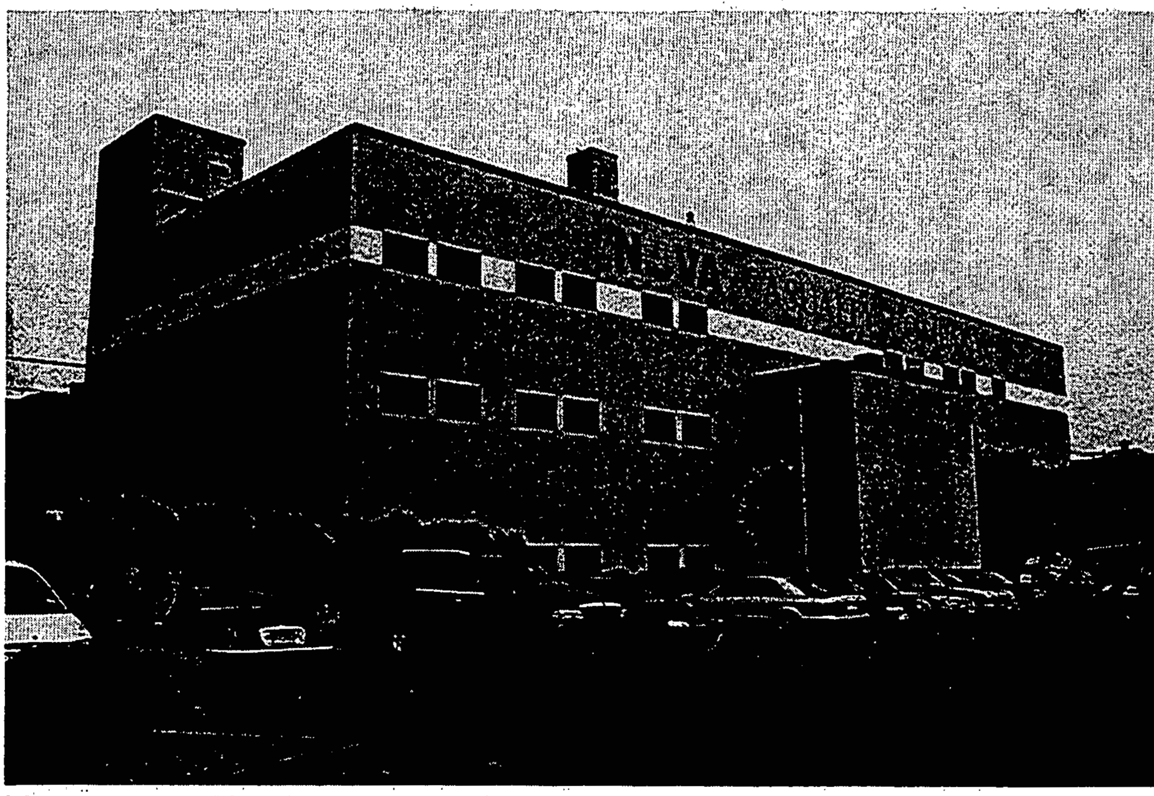
Photograph A-63. South and east elevations of 350 Ellicott Street, facing northwest *(PCI 2001).*

Photograph A-64. 36 Broadway, facing northeast *(PCI 2001).*

Photograph A-65. 42 Broadway, facing northwest *(PCI 2001).*

Photograph A-66. South and east elevations of 50 Broadway, facing northwest *(PCI 2001).*

Photograph A-67. Three-bay garage located at 2 Blossom Street, facing southwest *(PCI 2001).*



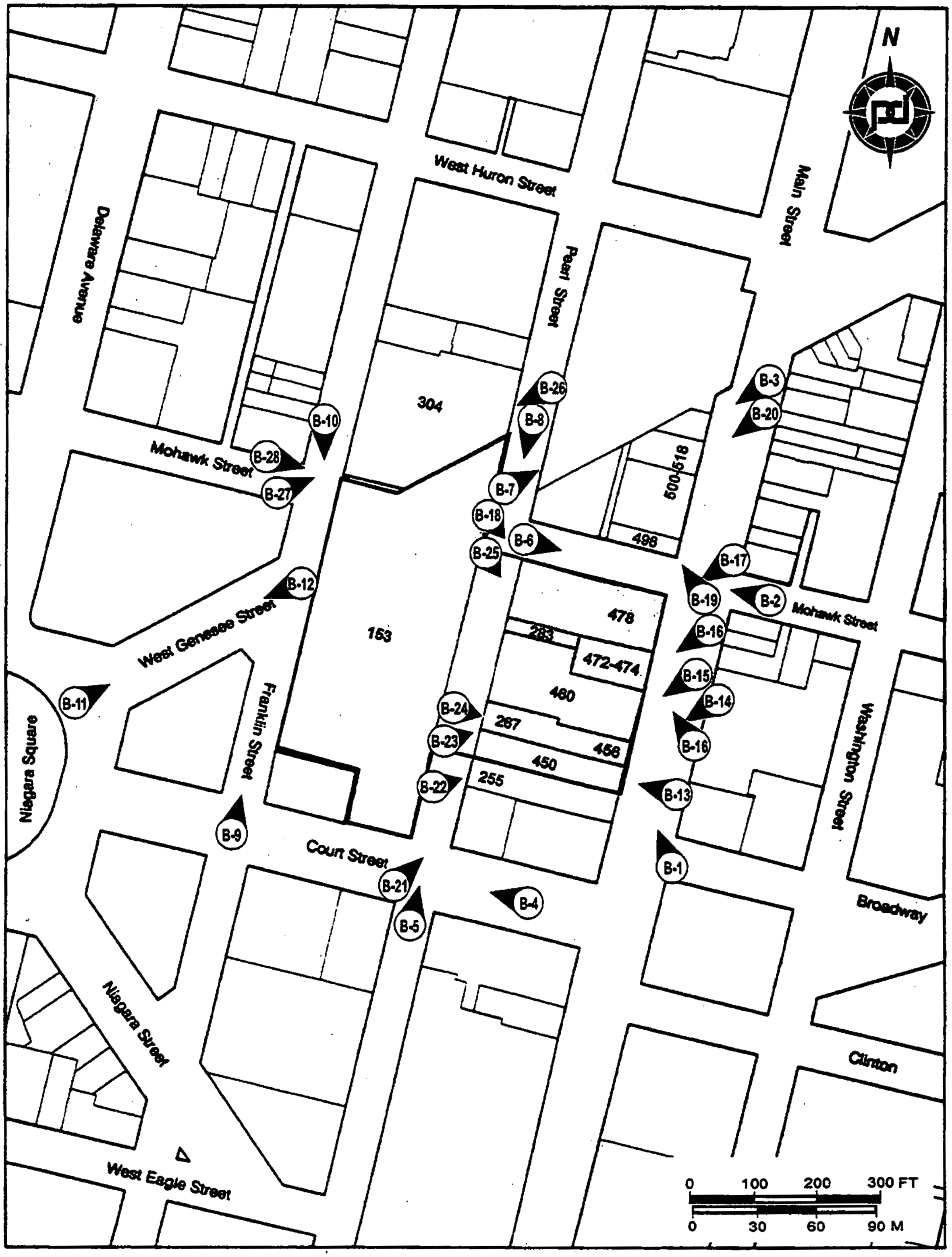
Photograph A-68. 180 Oak Street, facing northwest *(PCI 2001).*

Photograph A-69. 180 Oak Street, Blossom Street and Broadway elevations, facing north *(PCI 2001).*

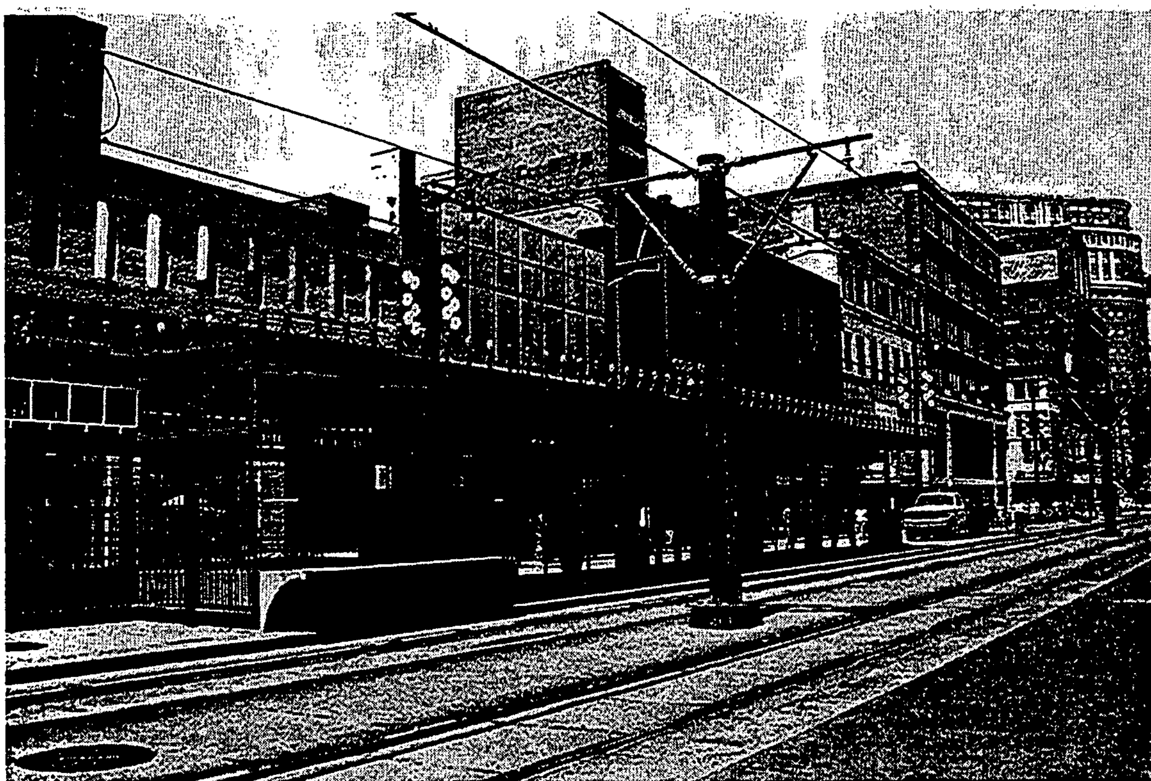
Photograph A-70. 198 Oak Street, facing northwest *(PCI 2001).*

Photograph A-71. 200 Oak Street, facing southwest *(PCI 2001).*

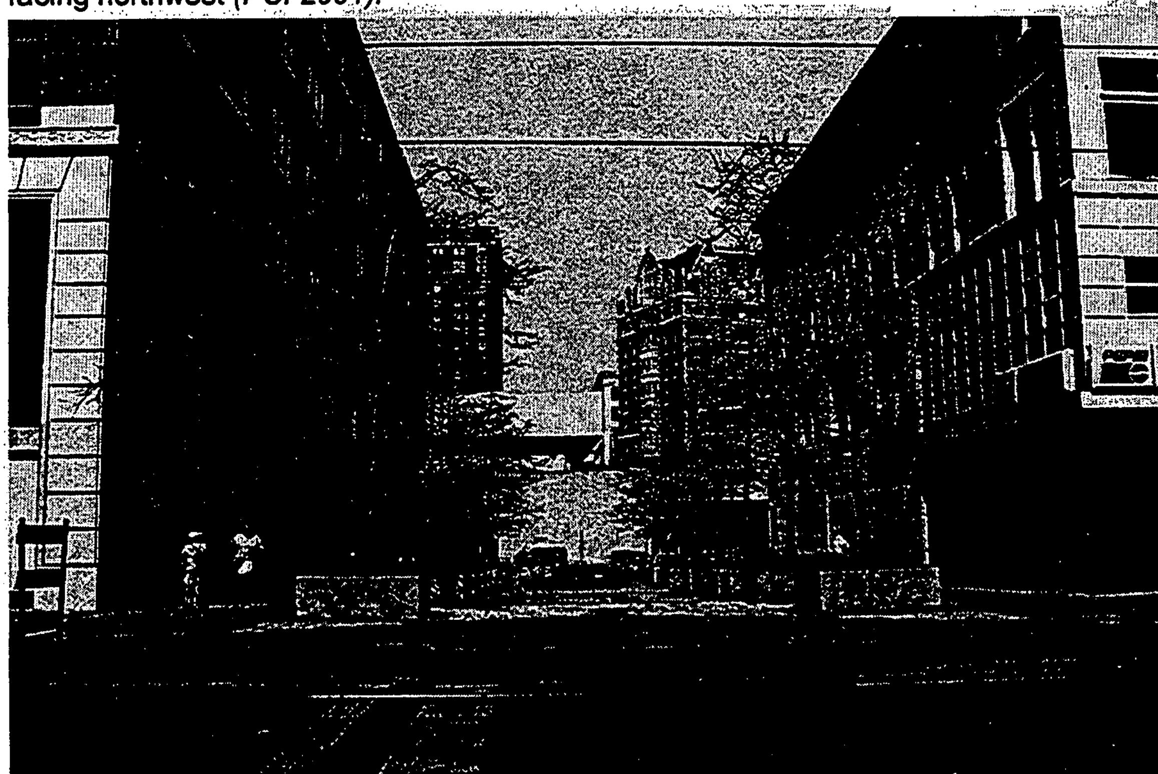
Appendix B
Photographs Existing Convention Center Site (B)



Locations and angles of photographs in Appendix B.

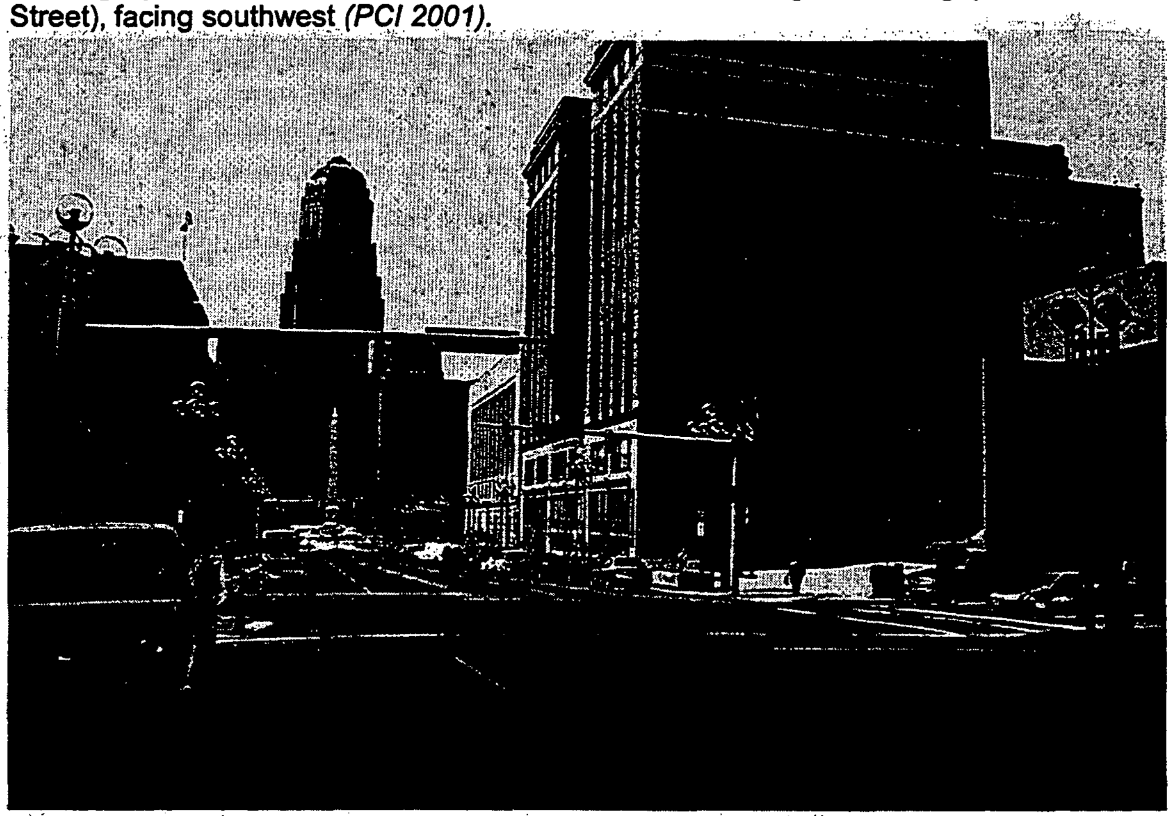


Photograph B-1. West side of Main Street (450 to 518 Main Street, from left to right), facing northwest *(PCI 2001)*.

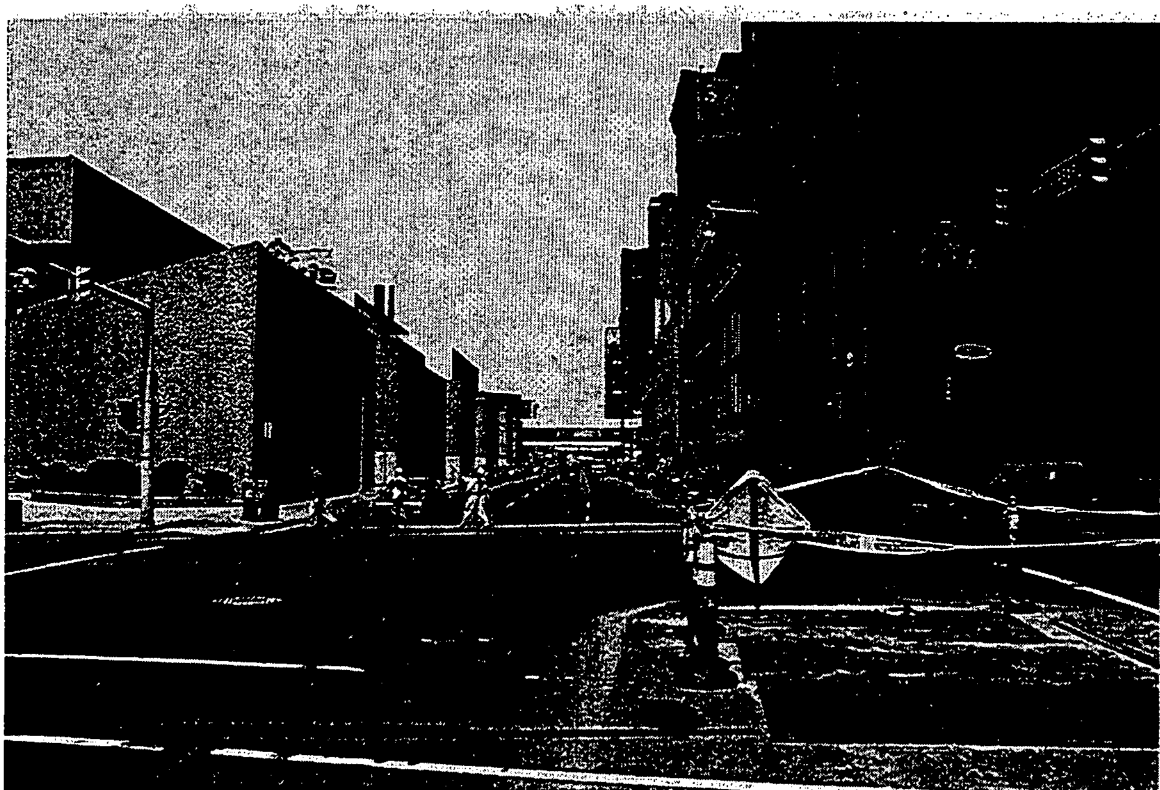


Photograph B-2. West Mohawk Place from Main Street, facing west. Note northern end of the existing Buffalo Convention Center in middle area of photograph with 478 Main Street at left and 496 Main Street at right *(PCI 2001)*.

Photograph B-3. West side of Main Street with L.L.Berger Building (500-518 Main Street), facing southwest *(PCI 2001).*

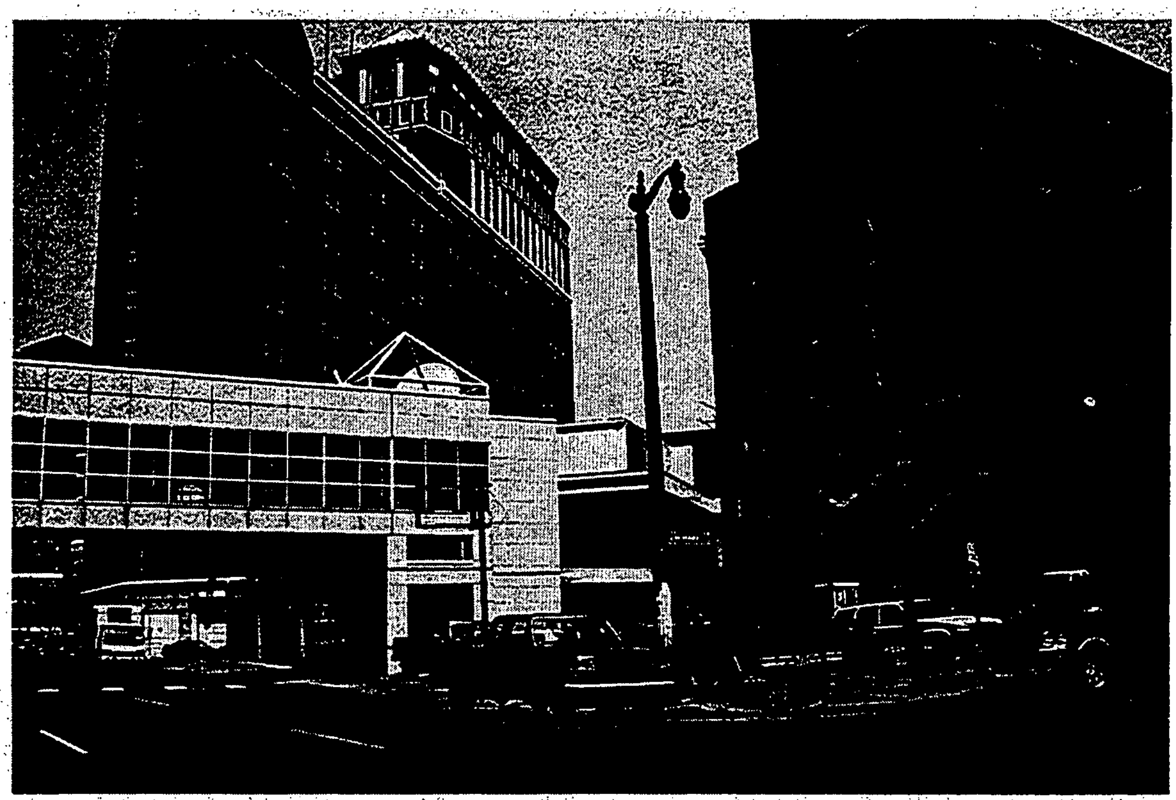


Photograph B-4. Court Street from east of Pearl Street with the southeast corner of the existing Buffalo Convention Center at the extreme right, facing west. Note Niagara Square with the McKinley Monument and City Hall in the distance *(PCI 2001).*

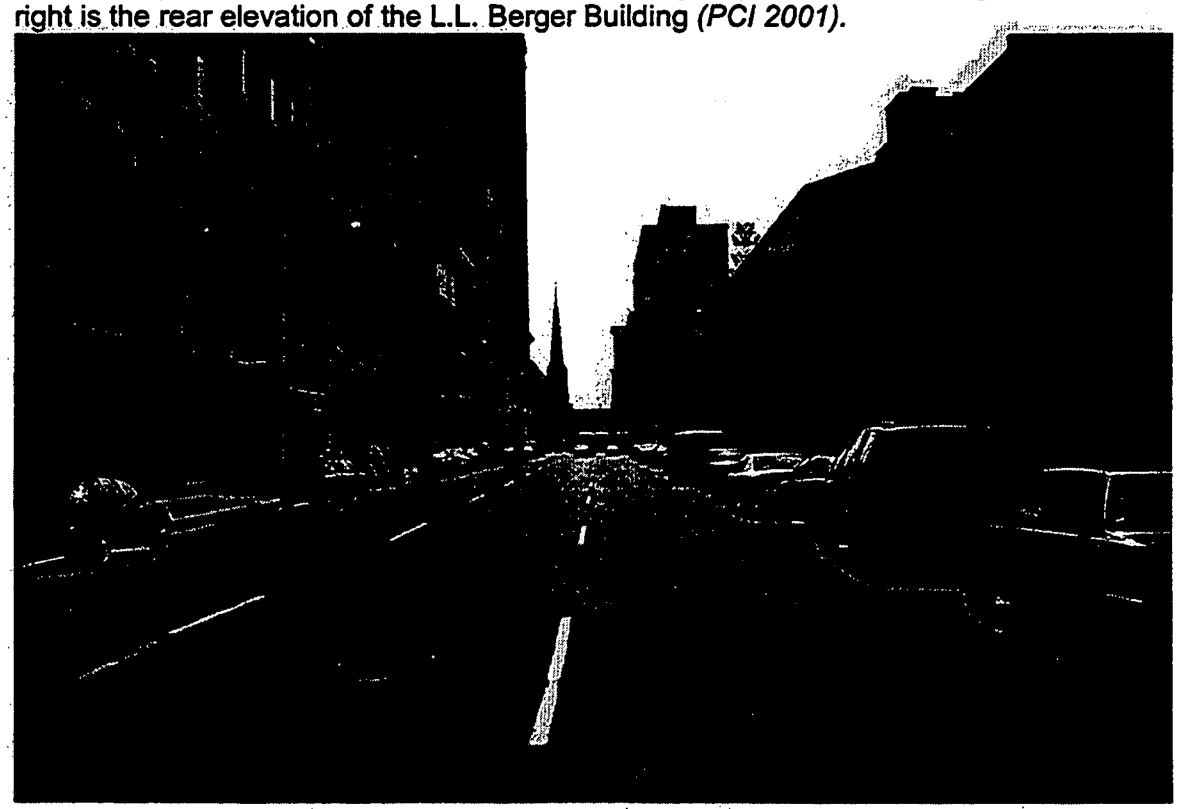


Photograph B-5. Pearl Street from Court Street, facing north. Note the Pearl Street elevation of the existing Buffalo Convention Center at left *(PCI 2001).*

Photograph B-6. West Mohawk Place from Pearl Street, facing east. In the distance is East Mohawk Place and a portion of the Mohawk Site (A) *(PCI 2001).*



Photograph B-7. The former alignment of Genesee Street from Pearl Street and West Mohawk Place, facing northeast. Note elevated walkway in left foreground connecting the existing convention center with the Hyatt Regency Hotel, left background. To the right is the rear elevation of the L.L. Berger Building *(PCI 2001).*

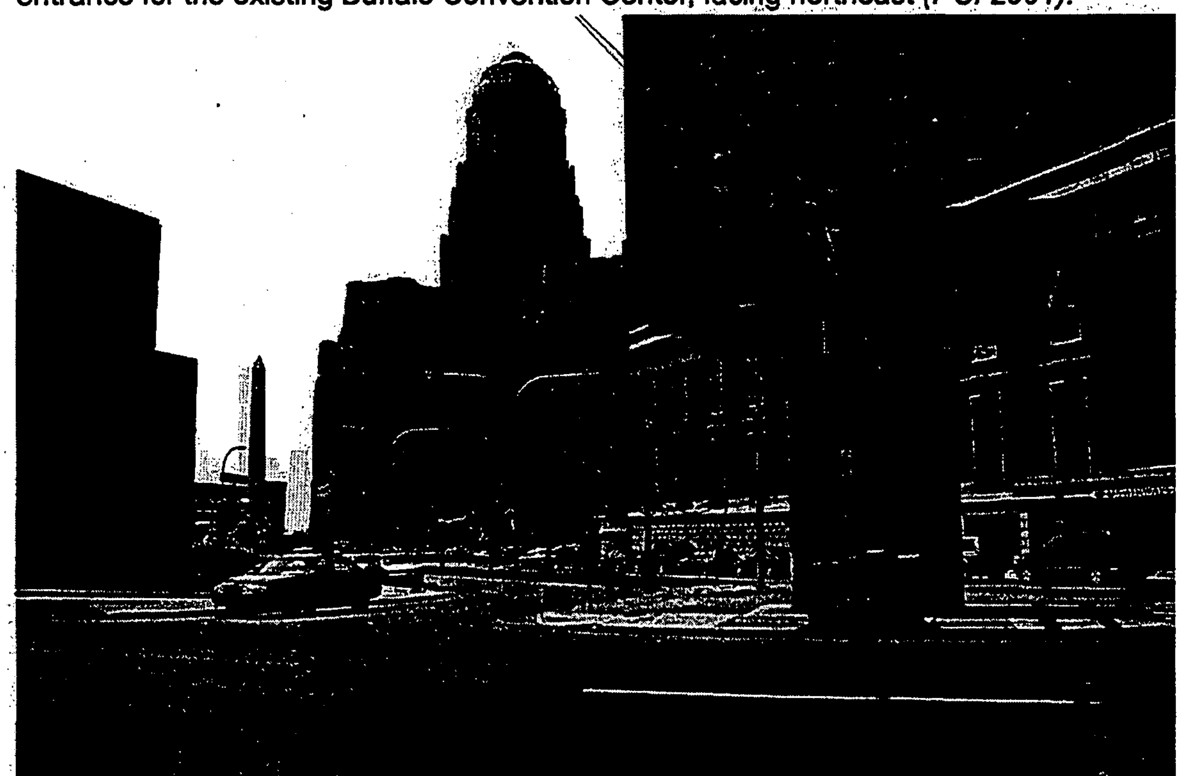


Photograph B-8. Pearl Street from near the northeast corner of the existing Buffalo Convention Center, facing south. Note one of the spires from Richard Upjohn's St. Paul's Episcopal Cathedral in the distance *(PCI 2001).*

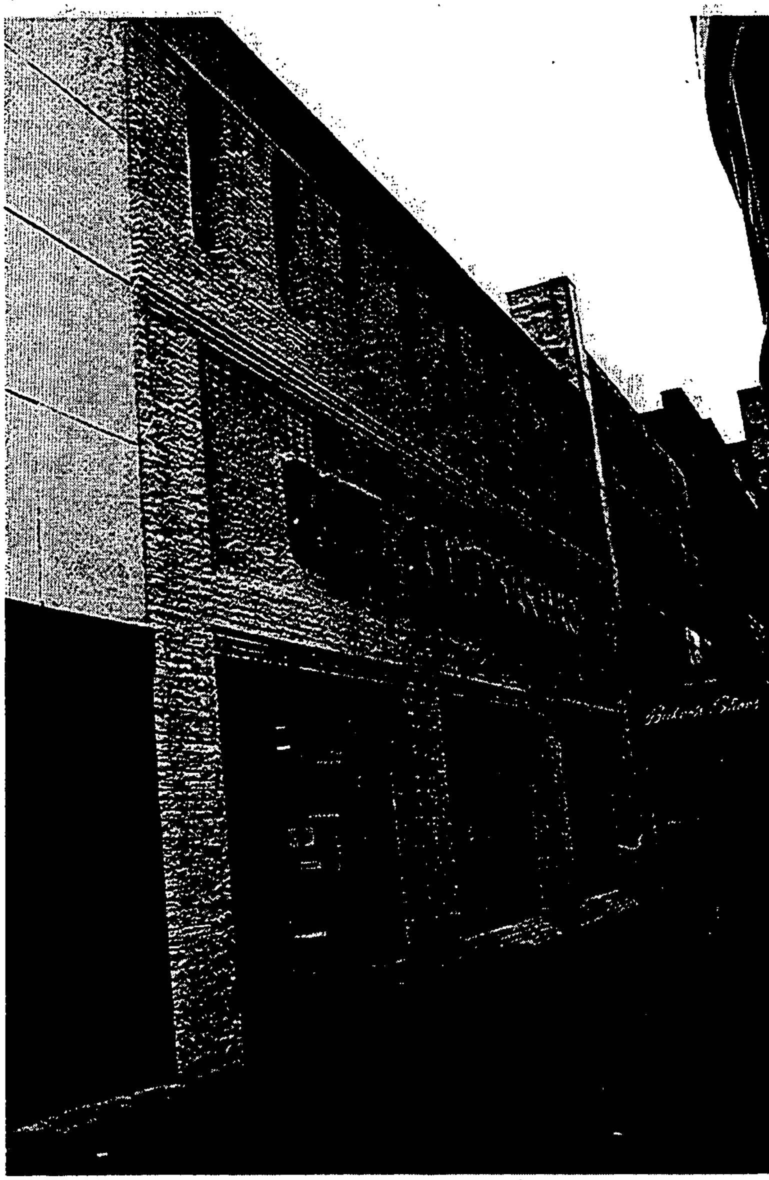
Photograph B-9. Franklin Street from Court Street with the existing Buffalo Convention Center at right, facing north *(PCI 2001).*

Photograph B-10. Franklin Street from just north of West Mohawk, facing south. Note the southwest corner of the National Register listed YMCA Building to the extreme left and the existing Buffalo Convention Center to the left *(PCI 2001).*

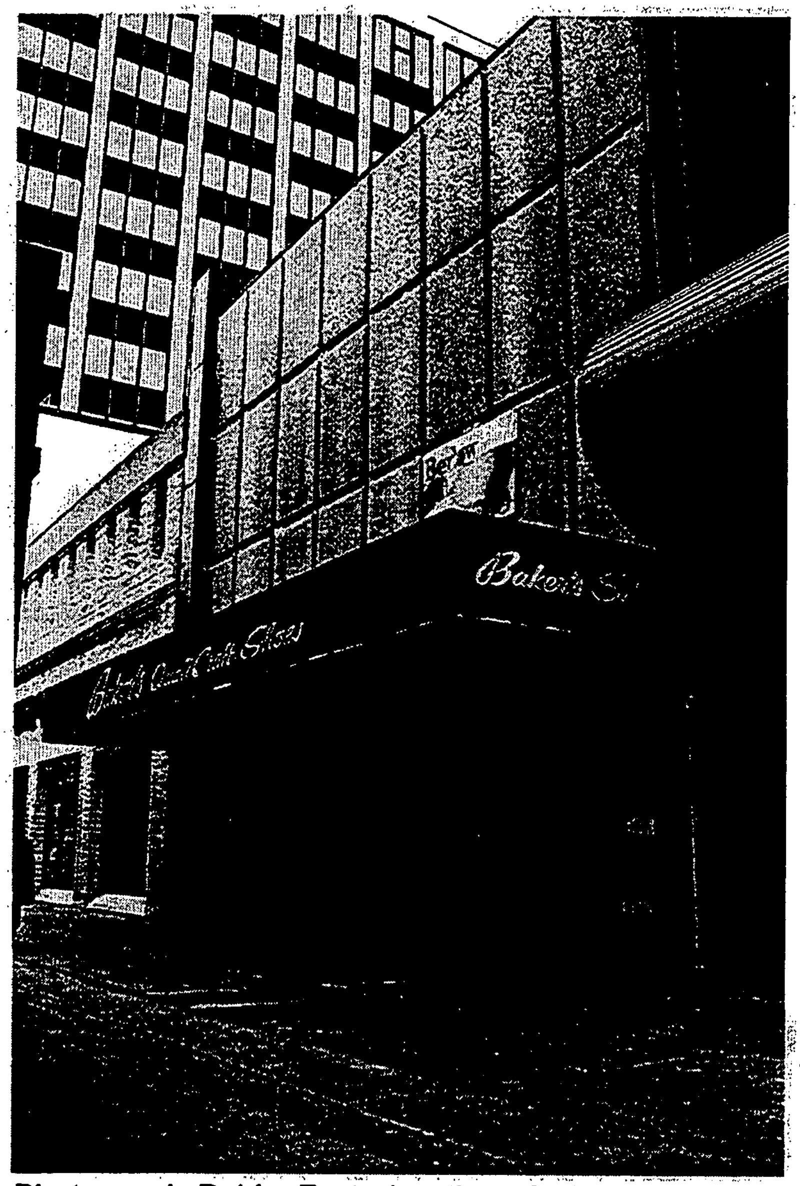
Photograph B-11. West Genesee Street from Niagara Square showing the main entrance for the existing Buffalo Convention Center, facing northeast *(PCI 2001).*



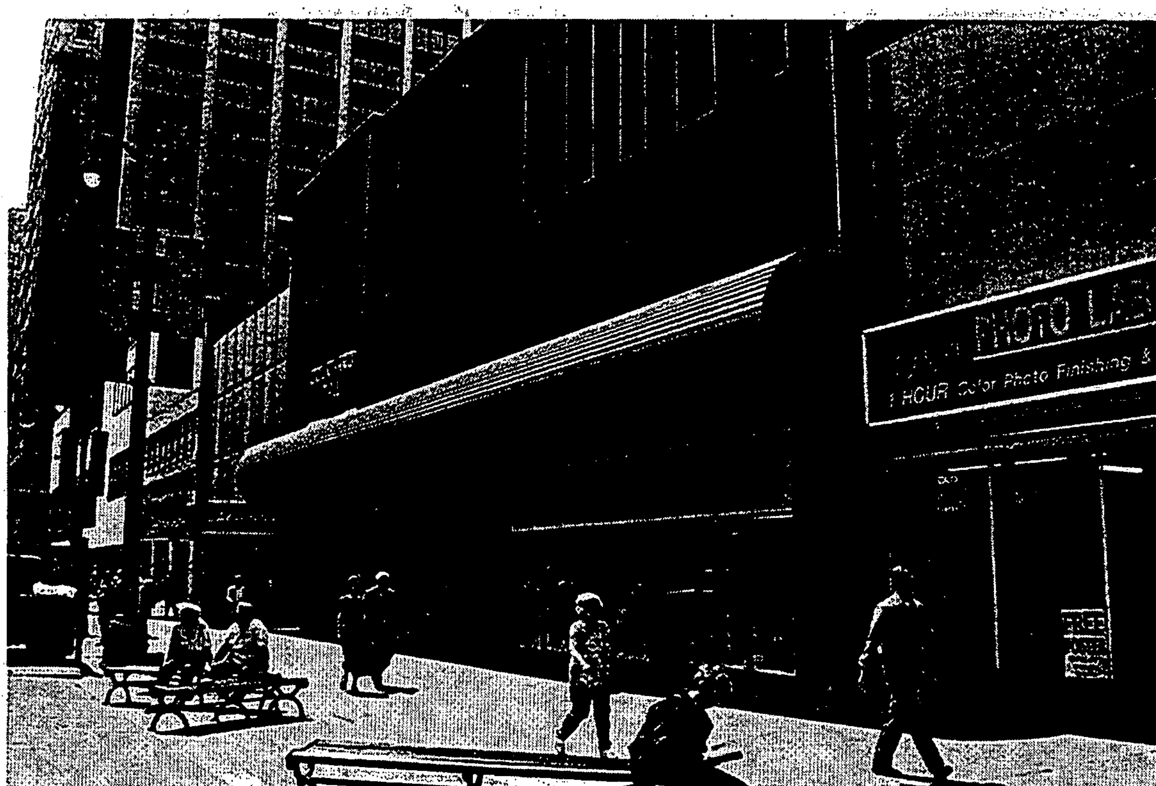
Photograph B-12. West Genesee Street from the existing Buffalo Convention Center, facing southwest. Note Niagara Square, the McKinley Monument and City Hall in the distance. A section of the north elevation of the Buffalo State Office Building is to the left, while the Statler Hotel is partially visible at right *(PCI 2001).*



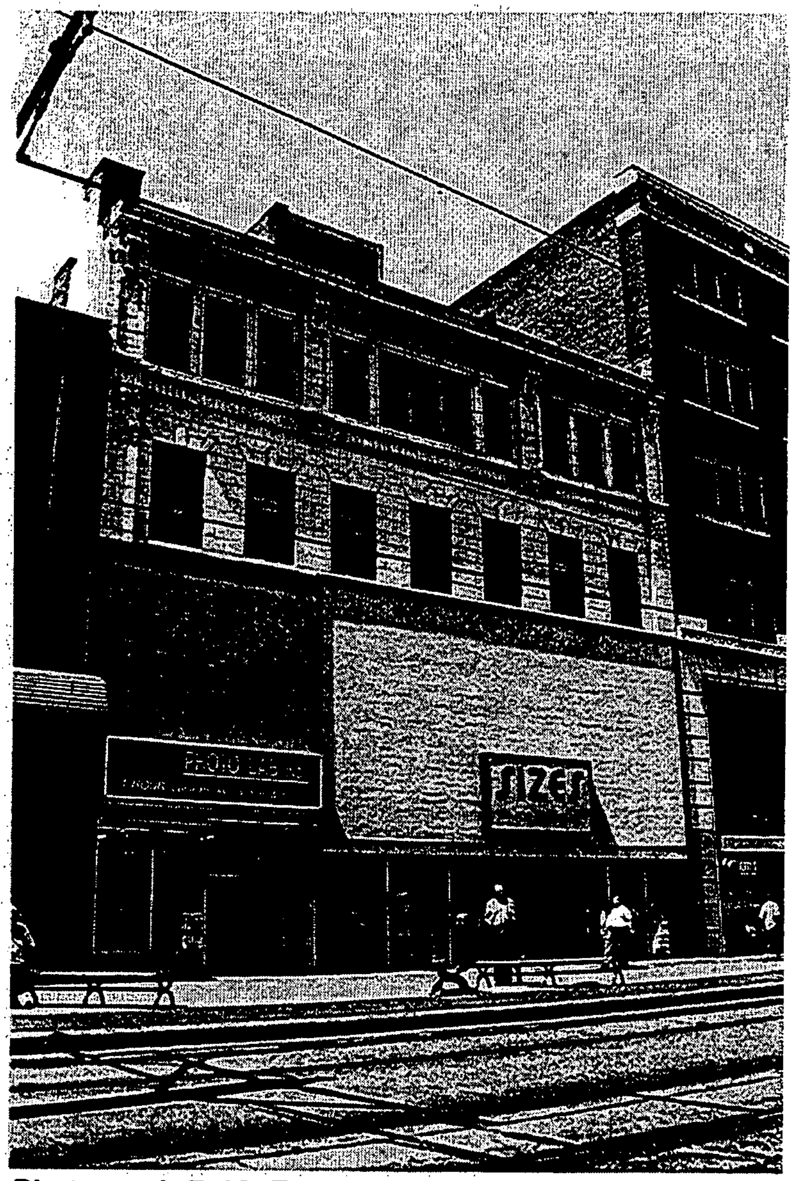
Photograph B-13. East elevation of 450 Main Street, facing northwest *(PCI 2001).*



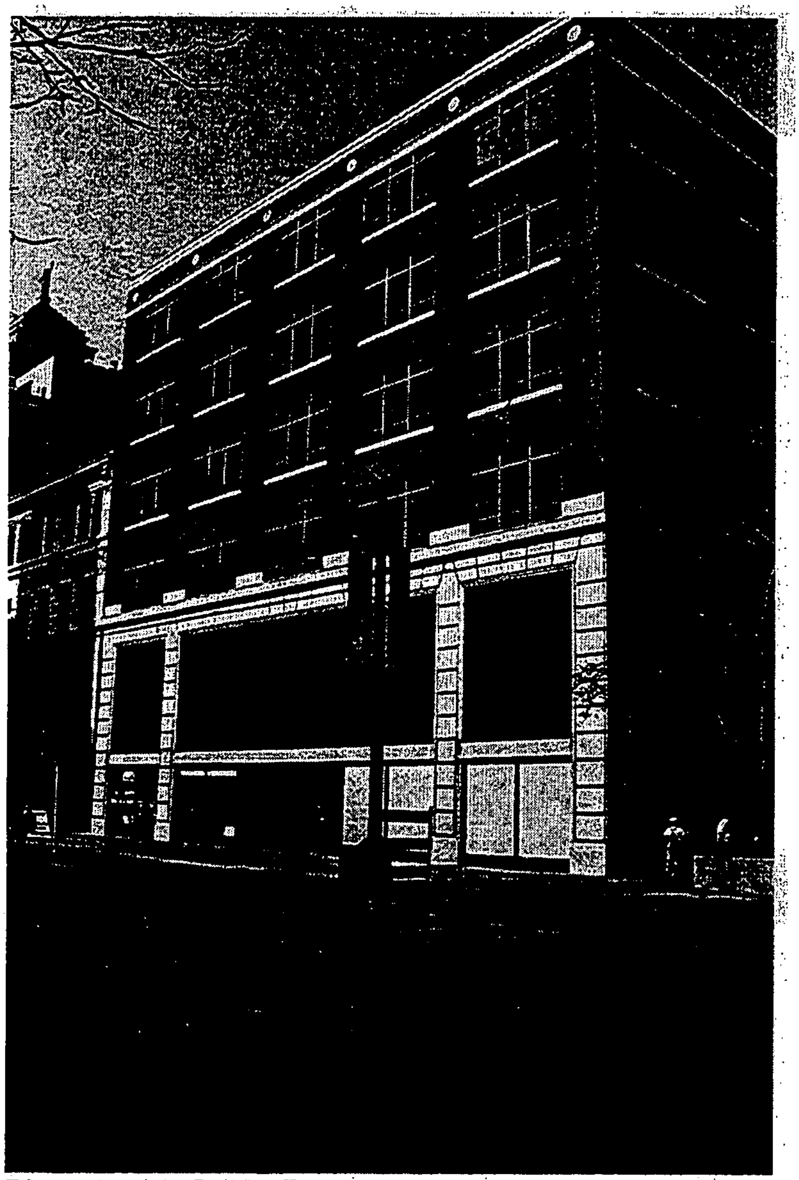
Photograph B-14. East elevation of 456 Main Street, facing southwest *(PCI 2001).*



Photograph B-15. East elevation of 460 Main Street, facing southwest *(PCI 2001).*

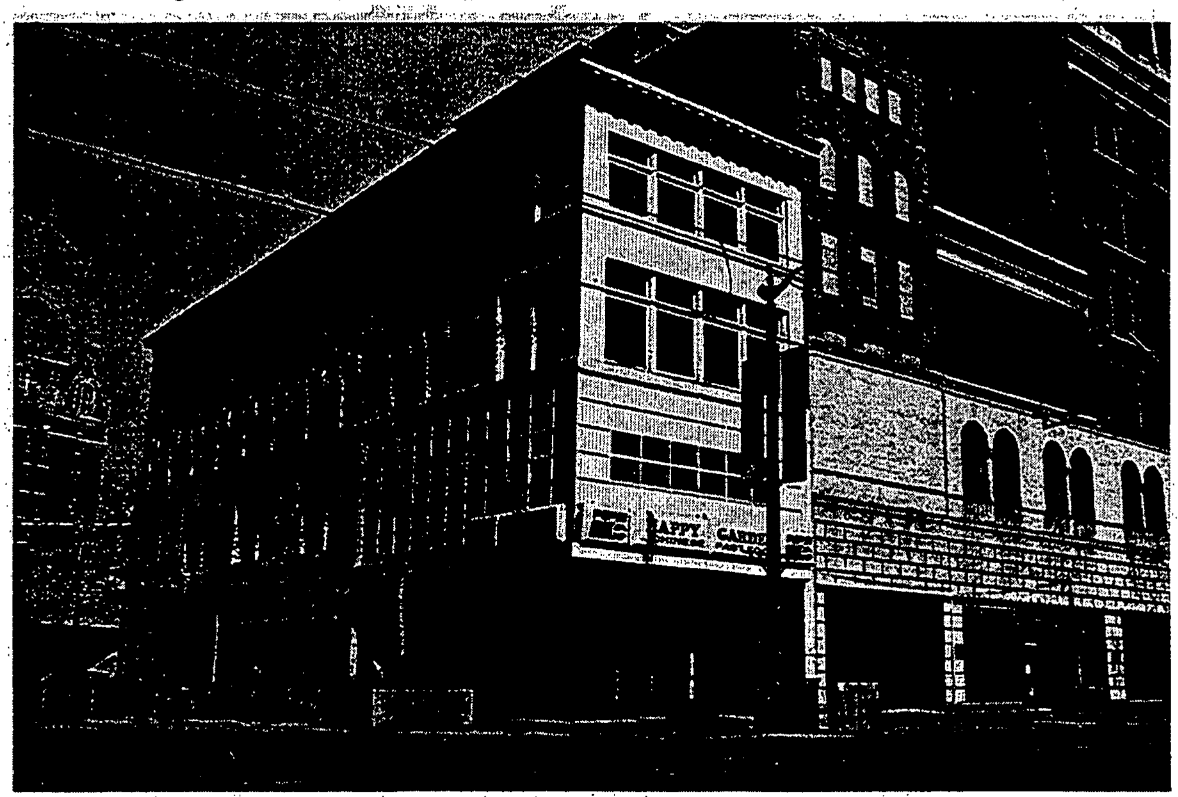


Photograph B-16. East elevation of 472-474 Main Street, facing northwest *(PCI 2001).*

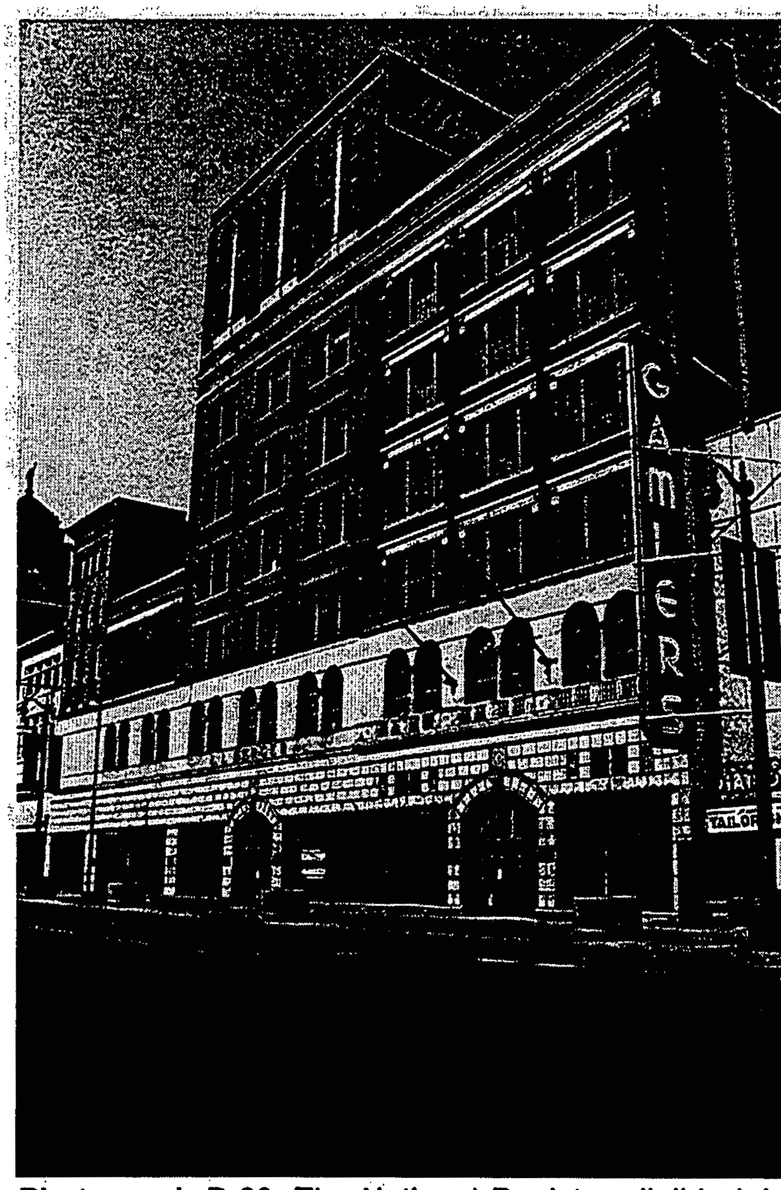


Photograph B-17. East elevation of 478 Main Street, facing southwest *(PCI 2001).*

Photograph B-18. North (W. Mohawk St.) and west (Pearl St.) elevations of 478 Main Street, facing southeast *(PCI 2001).*



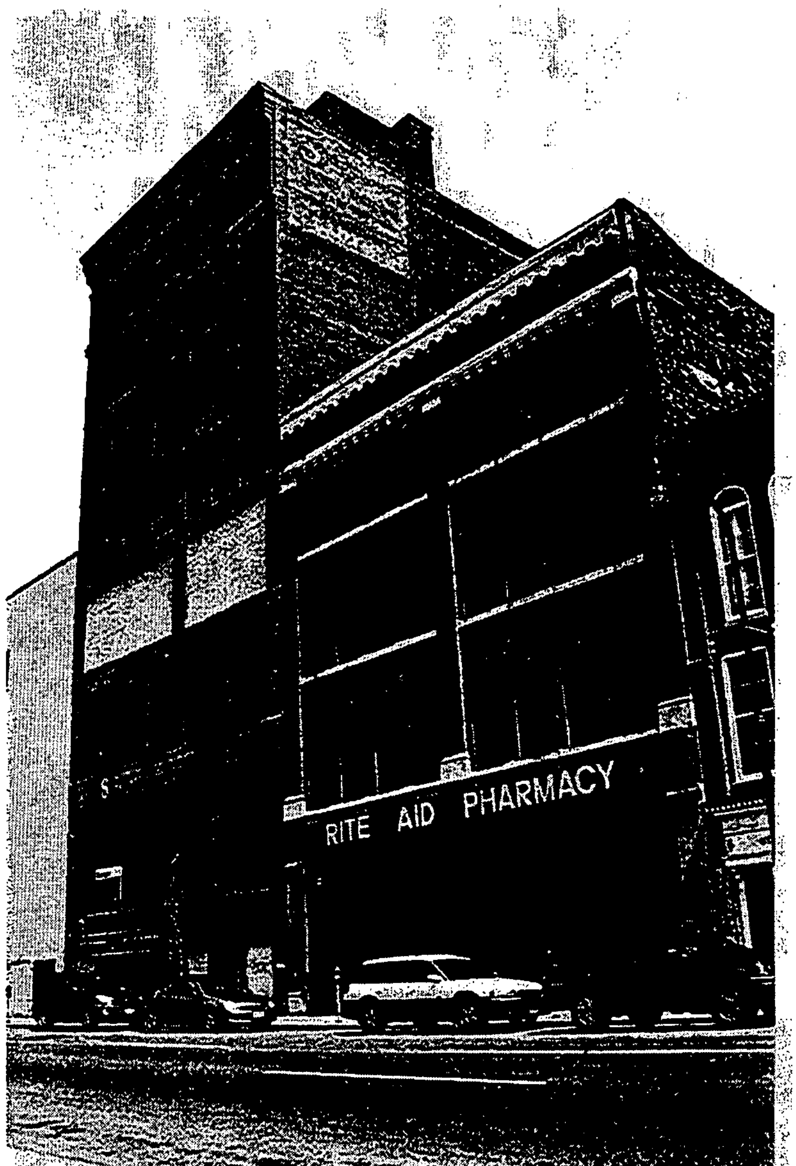
Photograph B-19. South and east elevations of 496 Main Street, facing northwest *(PCI 2001).*



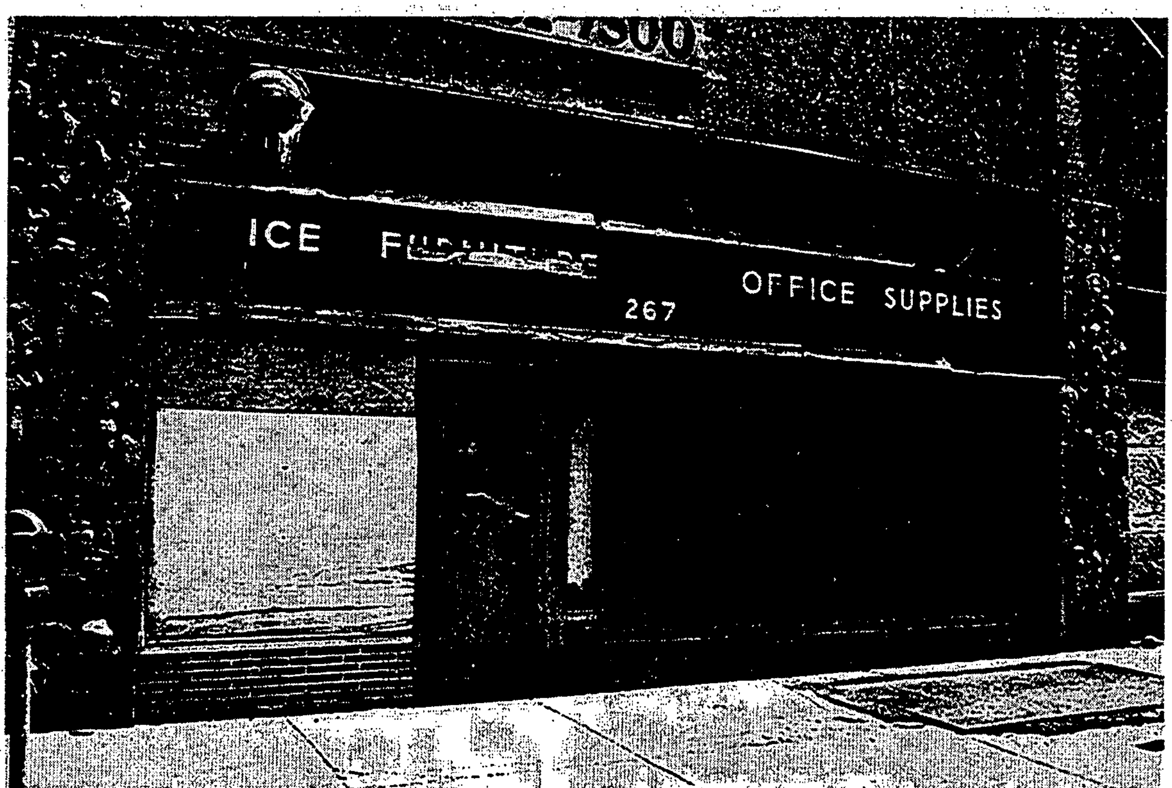
Photograph B-20. The National Register eligible L.L. Berger Building at 500-518 Main Street, facing southwest *(PCI 2001).*

Photograph B-21. East side of Pearl Street from Court Street, facing northeast *(PCI 2001).*

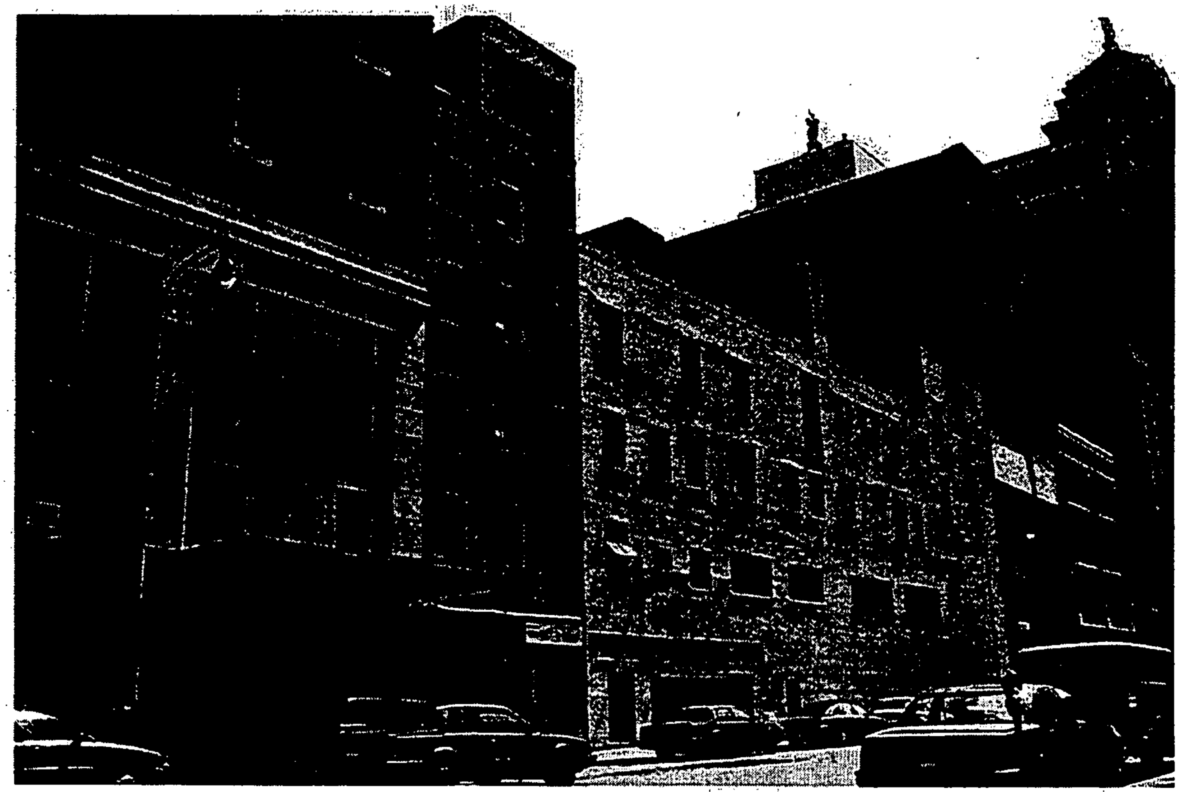
Photograph B-22. West elevation of 255 Pearl Street, facing east-northeast. This late nineteenth century commercial building is adjacent to the southern edge of the proposed Existing Buffalo Convention Center Site (B) *(PCI 2001).*



Photograph B-23. The Pearl Street elevation of 450 Main Street, at right, and the west elevation of 267 Pearl Street, facing northeast *(PCI 2001).*

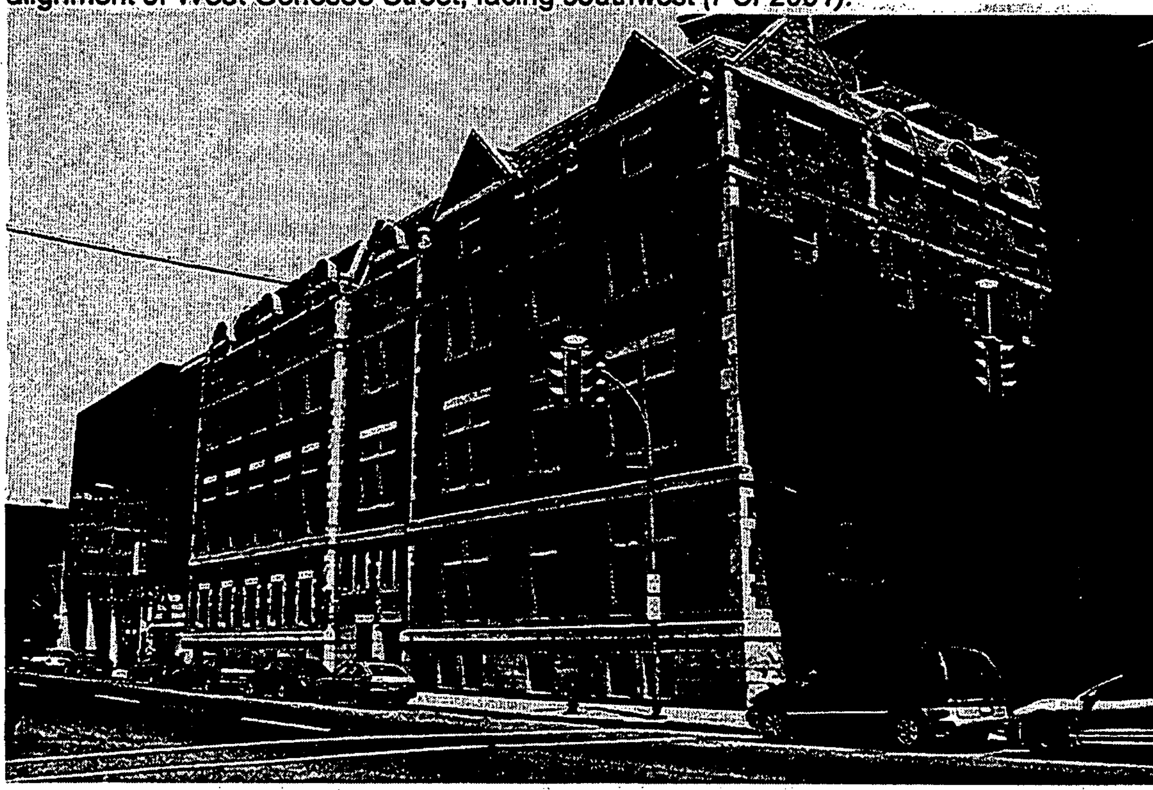


Photograph B-24. Detail of left storefront of 267 Pearl Street, facing east *(PCI 2001).*

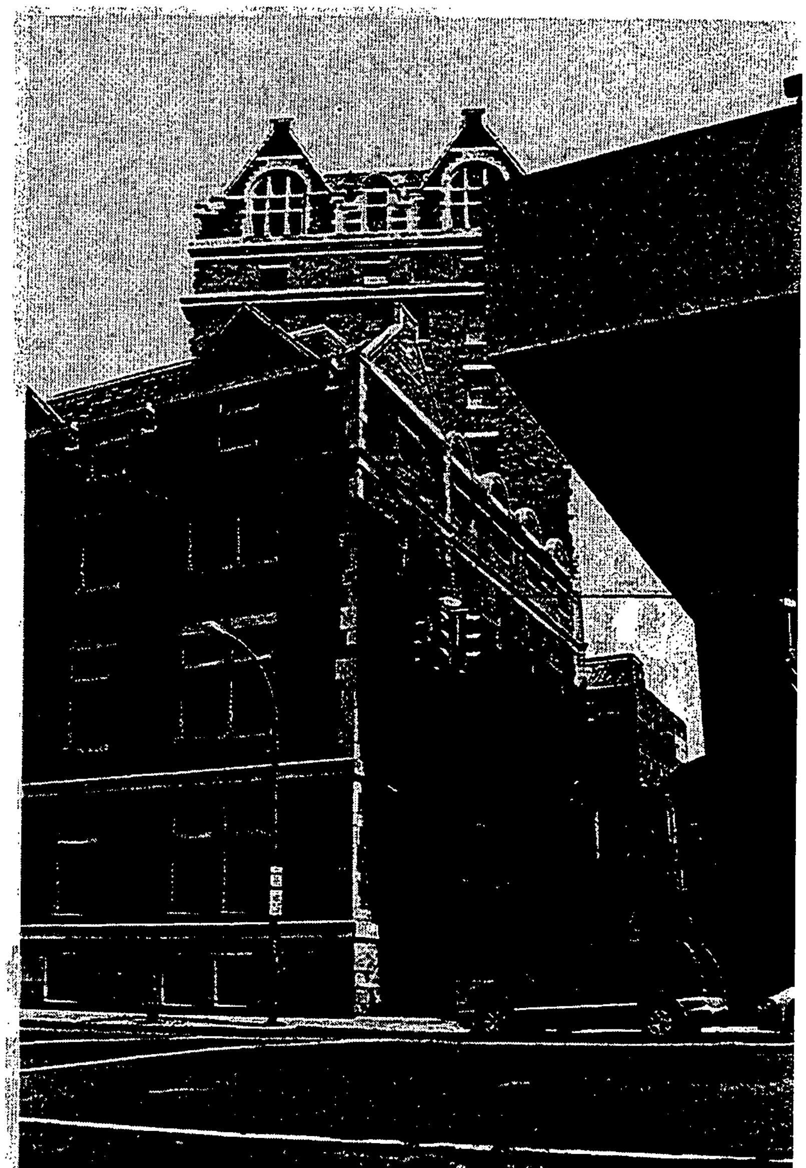


Photograph B-25. Pearl Street elevations of 460 Main Street, 472-476 Main Street and 478 Main Street, facing southeast *(PCI 2001).*

Photograph B-26. The YMCA Building (ca. 1901-1902) at 304 Pearl Street showing the northern end of the existing Buffalo Convention Center in the path of the former alignment of West Genesee Street, facing southwest *(PCI 2001).*

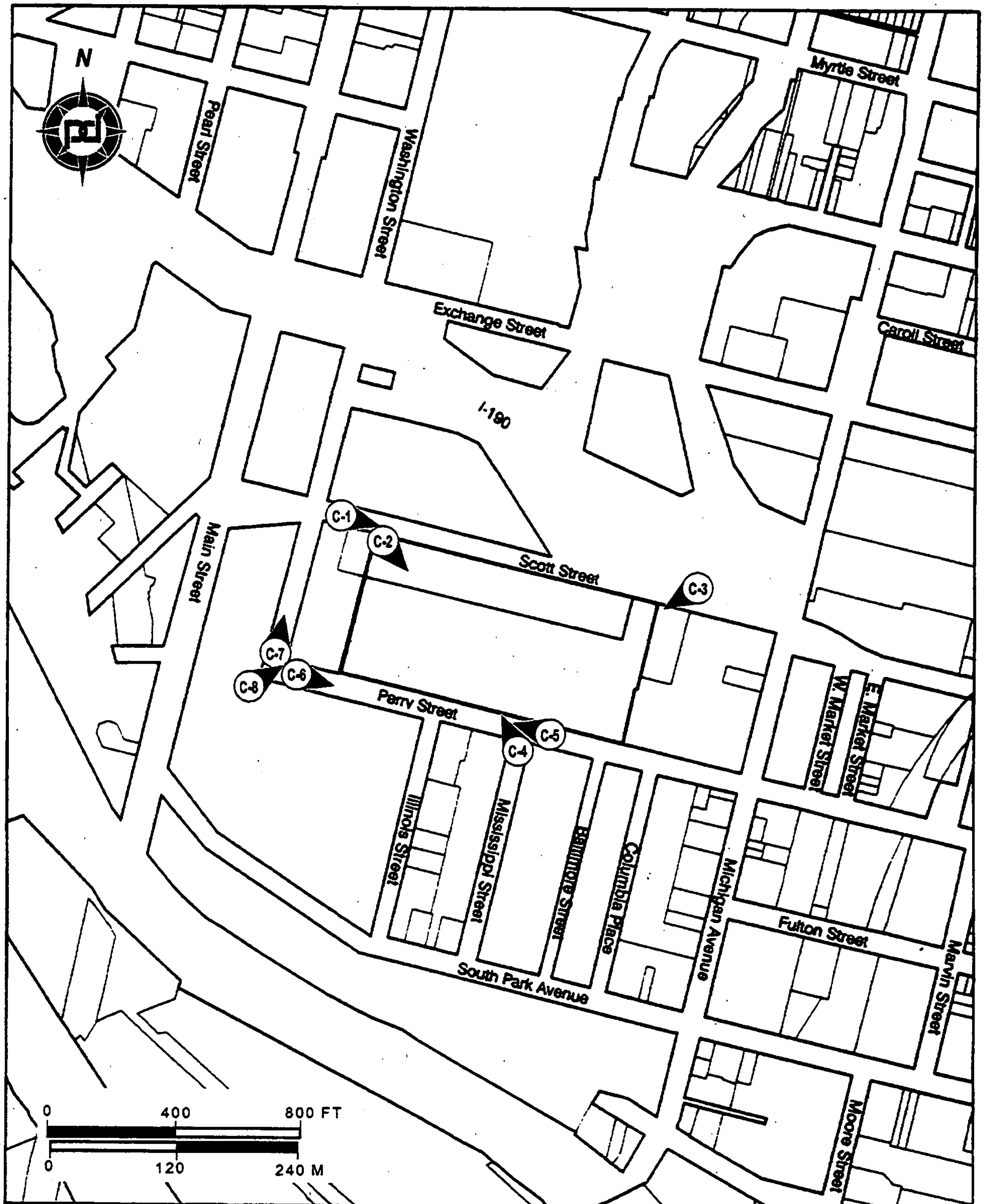


Photograph B-27. Franklin Street elevation of 304 Pearl Street, facing northeast. Note northwest corner of the existing Buffalo Convention Center at right *(PCI 2001).*



Photograph B-28. Walkway between 304 Pearl Street and the exsiting Buffalo Convention Center, facing northeast. Note column from portico of YMCA Building to right of center, and the L.L. Berger Building in the distant background *(PCI 2001).*

Appendix C
Photographs Waterfront Site (C)

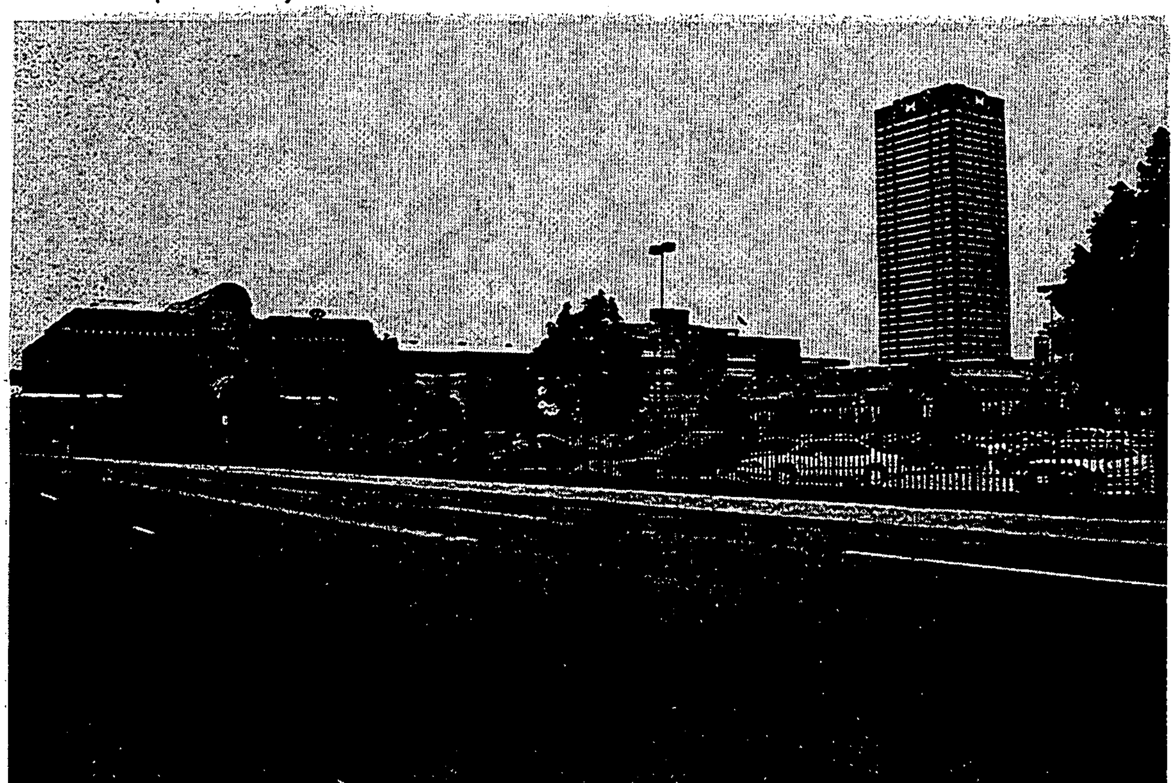


Location of Waterfront Site C and photographic angles.

Photograph C-1. Scott Street from east of Washington Street, facing east *(PCI 2001).*

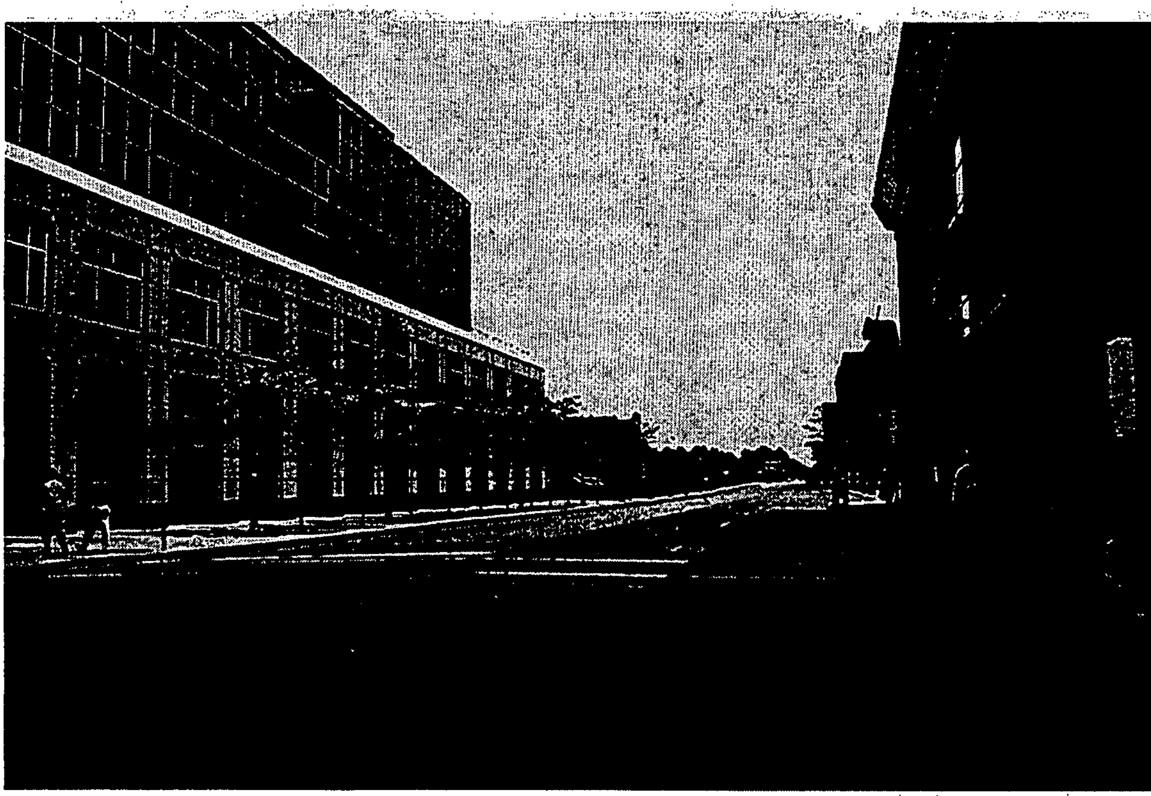
Photograph C-2. Waterfront Site (C) from east of Washington Street, facing southeast *(PCI 2001).*

Photograph C-3. Waterfront Site (C) from Scott Street west of Michigan Avenue, facing southwest *(PCI 2001).*



Photograph C-4. Waterfront Site (C) from Perry and Baltimore streets, facing northwest *(PCI 2001).*

Photograph C-5. Perry Street from Baltimore Street, facing west *(PCI 2001).*



Photograph C-6. Perry Street from Washington Street, facing east *(PCI 2001).*


Photograph C-7. Washington Street from Perry Street, facing north *(PCI 2001).*


Photograph C-8. HSBC Atrium, Washington Street Elevation, facing northeast *(PCI 2001).*

Appendix D
Vitae of Project Principals

Buffalo Branch Office • 2390 Clinton Street • Buffalo, NY 14227 • (716) 821-1650 • Fax (716) 821-1607

MICHAEL A. CINQUINO, Ph.D.
Senior Archaeologist, Senior Vice President

EDUCATION

Ph.D. Anthropology, State University of New York at Stony Brook, 1986
M.A. Anthropology, State University of New York at Stony Brook, 1977
B.A. Sociology, St. John Fisher College, Rochester, New York, 1971

EXPERIENCE

Dr. Cinquino is currently a Senior Archaeologist with Panamerican Consultants, Inc. (PCI) and director of the Buffalo (New York) Branch Office. He has served as project manager/ principal investigator on over 100 cultural resources projects throughout Western New York, New York, Pennsylvania, New Jersey, Puerto Rico, the U.S. Virgin Islands, and the United States. These projects include developments, natural gas pipelines, transportation projects, flood control projects for the Corps of Engineers, light rail rapid transit systems, industrial parks, wastewater treatment plants, fuel storage projects, interceptor sewers, a demolition project, construction monitoring, and U.S. military installations. In addition, he prepared numerous cultural resource sections for environmental assessment, impact statements, environmental resource documents, and cultural resource management plans and environmental audits.

Dr. Cinquino has conducted cultural resource investigations Western New York since 1980. His most recent projects include serving a project director and Co-Principal Investigator (Archaeology) for the new Buffalo Convention Center EIS and Phase IA cultural resource investigation; Project Director to conduct archaeological monitored of the removal of overburden from the former Commercial Slip of the Erie Canal for the Empire State Development Corporation; Co-Principal Investigator for the Phase IA cultural resource survey for the Main-LaSalle Revitalization Project GEIS in Buffalo, New York to adopt a master land plan and zoning amendments; and Co-Principal Investigator for a 20-mile pipeline project from Buffalo to the Town of Eden for National Fuel Corporation.

He is experienced at conducting cultural resource investigations on large-scale projects including corridor pipeline and highway projects, military installations, wastewater projects, etc. which often require detailed archival and historic map research, design of field methodology including predictive site modeling strategies, all phases of archaeological field investigations, documentation and report preparation. He has conducted investigations at military installations throughout the Eastern United States, Puerto Rico and in the Virgin Islands.

Dr. Cinquino also has extensive regulatory experience on the federal and state levels as State Archaeologist and Review and Compliance Archaeologist for the Puerto Rico State Historic Preservation Office (SHPO) and as a consultant for the New York State Department of Environmental Conservation (NYSDEC) directing the cultural resource review for the NYSDEC

permit program and SEQRA compliance. As an employee of Ebasco, he assisted in report reviews for the Federal Energy Regulatory Commission.

He is a member of the Register of Professional Archaeologists and certified in Field Research and Archaeological Resource Management. He is also on the New York State SHPO's list of archaeologists and a member of the New York Archaeological Council certified to conduct all phases of investigations in prehistoric and historic archaeology. Dr. Cinquino has completed the hazardous waste training course and is familiar with archaeological investigations in areas of potential hazard (e.g., hazardous materials, unexploded ordnance).

REPRESENTATIVE PANAMERICAN CONSULTANTS, INC. EXPERIENCE

Dr. Cinquino has served or is serving as Project Manager/Co-Principal Investigator of forty (50) projects for the New York District, Corps of Engineers including preparation of Cultural Resource Management Plans for the Picatinny Arsenal, Dover, New Jersey, Watervliet Arsenal in Albany County, and Fort Hamilton in Brooklyn, NY; a Cultural Resource Investigation for the Joseph G. Minish Passaic River Waterfront Park in northern New Jersey; and Phase I/II archaeological investigations at the U.S. Military Academy at West Point, Seneca Army Depot.

He served as project director for a Phase IB cultural resource investigation of the proposed 15-foot wide, roughly 35-mile long, fiber optic cable route right-of-way between the Town of Hudson, Columbia County, and the Town of Pleasant Valley, Dutchess County, New York. Prepared for Telergy, Inc., East Syracuse, NY, the investigation was conducted in compliance with the SEQRA, the State Historic Preservation Act (SHPA), and appropriate Federal legislation. Fieldwork was conducted according to the NYAC Standards for Archaeological Investigations. In addition, Dr. Cinquino is serving as co-principal investigator and project director for Phase IA/B cultural resources investigations for a proposed 26-mile fiber optic conduit between the City of Rensselaer through the remainder of Rensselaer County to the Massachusetts-New York state line, and for a Phase IA/B cultural resources investigations for a proposed 130-mile fiber optic conduit along Routes 22 and 684 from Stephentown, Rensselaer County, NY, to White Plains, NY, the eastern portion of New York State, parallel to the state's borders with Massachusetts and Connecticut.

Dr. Cinquino was principal investigator for the Phase I archaeological investigation of approximately 1700 acres of Griffiss Air Force Base in Rome, Oneida County, NY and annexes in Niagara County, under contract to Tetra Tech, Inc. He also served as Principal Investigator for the subsequent Phase II investigation of 20 archaeological sites at Griffiss Air Force Base, Rome, NY to determine National Register eligibility of these resources.

Dr. Cinquino serves as PCI's Project Manager for pipeline projects conducted for National Fuel Gas Supply Corporation (NFGS) in Pennsylvania and New York (under contract to Northern Ecological Associates, Inc.). PCI's recent projects for NFGS were a Phase I cultural resource investigation for the proposed Line X-M10 installation in the Town of Pendleton, Niagara County, NY; a Phase I cultural resource survey for the proposed Line S-43 replacement in the Summit Township, Erie County, Pennsylvania, and a Phase I cultural resource survey for the proposed Line K replacement in the Town of Orchard Park, Erie County, NY.

ADDITIONAL EXPERIENCE

Dr. Cinquino was employed by Ebasco Environmental, Inc. as archaeologist. His responsibilities included providing technical support to FERC staff, reviewing cultural resource reports and preparing documentation for FERC certificated EISs and EAs. He conducted various cultural resource projects including serving as co-principal investigator for a Stage 1A Cultural Resource Survey, Olean Superfund Site, Cattaraugus County, NY.

Puerto Rico State Historic Preservation Office (3 Years), San Juan, Puerto Rico

Dr. Cinquino served as State Archaeologist and Review and Compliance Archaeologist for the PRSHPO. His responsibilities included direction of Review and Compliance Section for Archaeology, review of Stage IA, IB, II, and III cultural resource reports, environmental assessments and impact statements for compliance of federal preservation laws and regulations, initial project assessment to determine level of archeological investigation, review of archeological proposals to conduct site testing (Stage II) and data recovery/mitigation (Stage III) investigations, site inspection visits through the island, review of cultural resources for eligibility to the National Register of Historic Places. He helped develop and implement formal field investigation and report documentation standards at the PRSHPO and for the PR Advisory Council guidelines for local projects.

He was the SHPO representative on the Advisory Council for the Protection of Terrestrial Archeological Patrimony of Puerto Rico, and Secretary for the Advisory Council for the Conservation and Investigation of Underwater Archeological Resource of Puerto Rico. These advisory councils were responsible for preparing archeological standards, reviewing archeological proposals for Stage II and Stage III intensive investigation, reviewing archaeological reports focusing on intensive archeological investigations, implementing Puerto Rican cultural resource laws and regulations, and reviewing and approving permits to conduct underwater salvage and archaeological investigations, and also acting as an arbitration committee for any disputes concerning cultural resources regulation or report review standards. He also served as PRSHPO representative to the Interagency Meeting for permit review held by the Corps of Engineers with EPA and U.S. Fish and Wildlife Service to assess permit applications and potential environmental effects. In addition, Dr. Cinquino conducted seminars for government agencies and municipality officials concerning archeological investigations, federal laws and regulation, and the federal compliance process.

He served as Principal Investigator for the Ballaja Archaeological Project (for first six months of project). The Ballaja project was a Phase III archaeological data recovery of approximately a two-city block area for a three story underground parking facility and revitalization project in Old San Juan, Puerto Rico. His tasks, as principal investigator, included project organization, development of field strategy and methodology, and inspection and quality control of the field investigation.

NY State Department of Environmental Conservation, Regulatory Affairs, Albany.

He was employed as Archaeological Consultant/Director of Cultural Resource Review for State Permits. His responsibilities included direction, coordination, and management of the statewide Uniform Procedure Act's permit program for compliance with the State Historic Preservation Act and State Environmental Quality Review Act (SEQRA). Responsibilities included review of 300 to 400 annual permit applications determining level of cultural resource survey, site testing, and mitigation required; critical report review, and, if required, State Register review (National Register

process); developed and implemented survey standards and guidelines for the program; conducted training sessions to educate statewide department personnel concerning cultural resource management and compliance with the State Historic Preservation Act and SEQRA; discussed cultural resource process and NYS permit regulations with applicants, consultants, and lawyers, and presented lectures to various interest groups.

Ecology and Environment, Inc., Buffalo, New York (1980-1986)

As Senior Archaeologist Dr. Cinquino's responsibilities included conducting and directing archaeological field surveys and subsequent report preparation, project management, preparing technical proposals, manpower needs, and costing; conducting archival research and site file searches, and client relations including detailing their responsibilities in complying with New York State and Federal cultural resource laws. Conducted and directed field surveys in New York, Puerto Rico, New Jersey, Ohio, Pennsylvania, and Massachusetts. Prepared cultural resource sections for environmental impact statements and environmental assessments for numerous projects throughout New York, Puerto Rico and the United States. Conducted cultural resource surveys for a diversity of projects including Buffalo's rapid transit system, the Downtown Buffalo Sports Complex, municipal wastewater treatment projects, shopping malls, light industrial parks, natural gas transmission lines, and U.S. Naval installations.

PCI BUFFALO • TUSCALOOSA • MEMPHIS • TAMPA

Buffalo Branch Office • 2390 Clinton Street • Buffalo, NY 14227 • (716) 821-1650 • Fax (716) 821-1607

CHRISTINE M. LONGIARU
Field Supervisor/Staff Architectural Historian

EDUCATION

M.A. Art History, State University Of New York at Buffalo, 1998
Master's Thesis: *A History of Architectural Cast Iron in Buffalo, New York: 1850-1900*

B.A. Anthropology and Art History, State University College at Buffalo, 1991

EXPERIENCE

Ms. Longiaru has more than twelve (12) years of archaeological excavation experience on prehistoric, historic period and urban sites and more than eight years experience researching and writing about American architecture and architects. She has extensive experience researching and discussing the architecture and archaeology of Western New York, including preparing more than 65 cultural resources reports for the New York State Museum (NYSM)/State Education Department's (SED) Cultural Resource Survey Program (CRSP) and the New York State Department Transportation (NYSDOT). Currently Staff Architectural Historian with Panamerican Consultants, Inc. (July 2000-present), Ms. Longiaru's duties include conducting field work and research, and writing reports related to historic architecture and Phase I cultural resource survey. She is experienced at conducting investigations on large-scale projects such as military installations and highway projects as well as for smaller, individual buildings and archaeological investigations.

REPRESENTATIVE PANAMERICAN CONSULTANTS, INC. EXPERIENCE

Most recently, Ms. Longiaru was the Architectural Historian for the *Phase I Cultural Resource Investigation for Chautauqua Middle School, Town of Chautauqua, Chautauqua County, New York* and for the *Archival Documentation and Photography, General Motors Plant No. 5, GM Powertrain Tonawanda Engine Plant, Tonawanda, Erie County, New York*. She conducted a Phase IA for the proposed Ellery Town Park, Town of Ellery, Chautauqua County, New York and prepared historical background information for the proposed Boston Assisted Living Facility, Town of Boston, Erie County, New York. She served as Co-principal Investigator and Architectural Historian for a Phase I cultural resource investigation of four cell towers for CellularONE and as Architectural Historian for the New York State Department of Transportation bridge replacement project for the *Phase 1 A/B Archaeological and Architectural Reconnaissance Survey for PIN 5576.71.121, NY Route 16 Bridge Replacements, Ischua, Cattaraugus County, New York*. She was the Architectural Historian for the *Phase IA/1B Cultural Resource Investigations for the Natural Resources Conservation Service Wetlands Restoration Project in Central and Northern*

New York. Prepared for the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). She served as Architectural Historian for the *Phase IB Cultural Resources Investigation for the Village of Silver Creek Water System Improvements, Town of Hanover, Chautauqua County, New York.*

For the U.S. Army Medical Research Acquisition Activity (Fort Detrick, Maryland) Ms. Longiaru was project historian for an Integrated Cultural Resource Management Plan (ICRMP) for Fort Campbell, Kentucky and for the *Cultural Resources Inventory and Evaluation for Proposed Automobile Technology Evaluation Facility and National Register Evaluation for Proposed Districts at Phillips Airfield, Aberdeen Proving Ground, Hartford County, Maryland.* She assisted with the Cold War-period architectural inventories of Pine Bluff Arsenal, Jefferson County, Arkansas and of Umatilla Chemical Depot, Umatilla County, Oregon.

For the U.S. Army Corps of Engineers, New York District, Ms. Longiaru served as Architectural Historian and Field Supervisor for the *Review and Impact Assessment of the Master Plan for the West Point Elementary and Middle Schools United States Military Academy at West Point, Orange County, New York* and for the *National Register of Historic Places Eligibility Evaluation and Rehabilitation Design Review New Brick Housing Area United States Military Academy, West Point, Orange County, New York.*

Ms. Longiaru has served as a Architectural Historian for a number of telecommunication tower projects that include: the *Phase I Cultural Resources Investigation for the Proposed Crown Castle Cellular Communications Tower, Kanona Site on Campbell Creek Road, Town of Bath, Steuben County, New York (OPRHP# 00PR4970)* and the *Photographic Documentation for the Proposed Crown Castle South Avoca Site Cell Tower Project 4832 Nipher Road, Town Of Bath, Steuben County, New York (OPRHP# 00PR4574).*

During the winter of 2000-2001, Ms. Longiaru was a Field Supervisor for the archaeological monitoring of the bulk excavation of the Commercial Slip of the historic Erie Canal, Buffalo, New York.

ARCHAEOLOGICAL AND ARCHITECTURAL SURVEY EXPERIENCE

Private Consultant, 2000

Principal Investigator for the *Architectural Reconnaissance Survey of the Proposed Reinvestment of the General Motors Powertrain Group Tonawanda Engine Plant Expansion, 280 and 244 Vulcan Street, Tonawanda, Erie County New York (00PR1166).*

Archaeological Survey of the State University of New York (SUNY) at Buffalo, Amherst, NY *(May 1993-July 2000)*

Research Analyst—Crew Chief (Architectural History/Historic Archaeology). As staff architectural historian, Ms. Longiaru conducted and oversaw all aspects of architectural surveys for cultural resources reconnaissance investigations for SUNY at Buffalo Archaeological Survey under contract to the NYSDOT as part of their Section 106 compliance. For each transportation project, which ranged in type and scale from small

bridge replacements in rural areas to large-scale urban projects involving over two hundred (200) properties, she assessed potential impacts to all properties and historical resources. Each recommended NRE property was thoroughly researched and documented.

Ms. Longiaru supervised a small staff of researchers who assisted in the preparation of background research for establishing historic contexts. She was involved with every aspect of report production. Her editorial responsibilities included final review of the historic background and context.

As crew chief for Phase IB archaeological field investigations, Ms. Longiaru directed a small group of field technicians during field investigations for cultural resources projects. Her other archaeological experience includes monitoring road construction for historic period resources, such as plank roads. In addition, she has archaeology-related lab experience, including historic period artifact analysis, soil flotation and artifact curation for the Marion E. White Museum, Department of Anthropology, SUNY Buffalo.

SELECTED WORK in the CITY OF BUFFALO, ERIE COUNTY, NEW YORK

From December 2000 though January 2001, Ms. Longiaru was a Field Supervisor for the archaeological monitoring by Panamerican Consultants, Inc. of the bulk excavation of the Commercial Slip of the Erie Canal, Buffalo, Erie County, New York.

In 2000, she served as Architectural Historian and Field Supervisor for the Carroll Street Freight House (USN 02940.023440), *Addendum Archaeological Reconnaissance Survey of PIN 5754.55.121, Replacement of the Michigan Avenue Bridge (BIN 2260610) over the Conrail Railroad Tracks and Exchange Street, City of Buffalo, Erie County, New York.Reports of the Archaeological Survey* (Vol. 32, No.5). Department of Anthropology State University of New York at Buffalo.

In 1998, she served as Architectural Historian for the *Preliminary Archaeological and Architectural Reconnaissance Survey of PIN 5754.55.121, Replacement of the Michigan Avenue Bridge (BIN 2260610) over the Conrail Railroad Tracks and Exchange Street, City of Buffalo, Erie County, New York. Reports of the Archaeological Survey* (Vol. 30, No. 31). Department of Anthropology State University of New York at Buffalo.

In 1998, she served as Architectural Historian for the *Archaeological and Architectural Reconnaissance Survey of PIN 5754.43.121, Reconstruction and Widening of Hertel Avenue, from Delaware Avenue to Starin Avenue, City of Buffalo, Erie County, New York.* RAS 30 (1). Department of Anthropology State University of New York at Buffalo.

In 1996, she served as Architectural Historian for the *Cultural Reconnaissance Survey of PIN 5034.93.101, Reconstruction of Main Street (NY Route 5), City of Buffalo, Erie County, NY.* RAS 28 (8). Department of Anthropology State University of New York at Buffalo.

In 1994-1995, served as a Field Technician for the Marine Midland Arena's Miley Site (USN 02940.019631) and for the Martin Phillips Site (USN 02940.019633).

PCI BUFFALO • TUSCALOOSA • MEMPHIS • TAMPA
Buffalo Branch Office • 2390 Clinton Street • Buffalo, NY 14227 • (716) 821-1650 • Fax (716) 821-1607

MARK A. STEINBACK
Historian

EDUCATION

M.A. Local and Regional History, State University of New York at Albany, 1987
B.A. History (with Honors), State University of New York at Albany, 1985

EXPERIENCE

Mr. Steinback is currently Historian for Panamerican Consultants, Inc. (PCI) and director of report and proposal production at the Buffalo (New York) Branch office. He has over ten (10) years experience conducting historic period and archival research and analysis. His experience includes preparing summaries of local ethnohistoric and historic period background and assessing historic period site sensitivities and significance for various cultural resource and archaeological projects. These investigations include preparation of historic period background of project sites; archival, documentary, ethnohistoric, and cartographic research; prehistoric and historic site file analysis; relevant federal and state census and deed research; and preparation of written evaluations for inclusion in archaeological and cultural resources reports.

He is experienced at conducting historical and archival research for large-scale projects including U.S. military installations (e.g., the Air Force, Army, Marine and Navy) pipeline/corridor projects, and flood control projects, which often require detailed archival and historical map research, design of research questions as part of field methodologies, and report preparation (including Historic American Engineering Record [HAER]-level documentation). In addition, he has more than seven (7) years editorial experience and has edited more than thirty (30) cultural resource, archaeological, structural, and environmental assessment reports for both public and private sector clients.

Between 1991 and 1995 Mr. Steinback taught courses in American History and Western Civilization at Schenectady County Community College, Schenectady, New York, as an adjunct history instructor. His early research interests focused on the development and practice of mercantilist theory as it concerned English colonization of North America and the Caribbean. Later research interests involved the industrialization of America from the 1840s through the 1920s with a special focus on socio-cultural history of workers and their responses to industrialization, immigration and urbanization. He is a member of the Organization of American Historians.

REPRESENTATIVE PANAMERICAN CONSULTANTS, INC. EXPERIENCE

For the New York District Corps of Engineers, Mr. Steinback conducted background and archival research and prepared the historic period background for eight (8) projects at the United States Military Academy (USMA) at West Point, Orange County, New York. These projects included six (6) Phase I cultural resource surveys (the Stony Lonesome Child Development Center, the Stony Lonesome One-Stop Shopping Center [PX], the Cat Hollow Swamp/Beaver Pond Timber Harvest, the proposed Long Pond/Stillwell Lake Timber Harvest, the proposed Firebreak 2 Timber Harvest,

and the proposed Turkey Mountain Timber Harvest), one Phase II survey (the Stony Lonesome PX), and one Phase III data recovery project (Revolutionary War Hut Site #6). In addition, he conducted documentary research and prepared a written historical context for the draft environmental impact statement for the proposed renovation of the Arvin Physical Development Center at the USMA

For the U.S. Air Force Center for Environmental Excellence (under subcontract to Tetra Tech, Inc.), Mr. Steinback conducted archival and background research and prepared the historic period overview section of the report for the Phase I archaeological investigation at Griffiss Air Force Base, Rome, New York. He also conducted intensive archival and documentary research and prepared the site-specific historic discussion section for the Phase II archaeological investigation of 20 sites at Griffiss Air Force Base. He also edited the draft and final reports of the Phase II. In 1997, he prepared the site-specific historic discussion for the Phase II investigation at PCI Site 3 at Griffiss Air Force Base and edited the draft report. In 1999 he edited the report discussing the archaeological monitoring investigation of NYSHPO AO6541.000438 (an historic period archaeological site) at the former Griffiss AFB (under contract to Peer Consulting).

Recently, Mr. Steinback's has served as project historian for more than twenty (20) local, western New York projects for which he has conducted historical, background and environmental research and prepared and/or edited. These reports include: the Phase IA for the new Buffalo Convention Center, Phase IA for the New York Power Authority repermitting project, a Phase IA/B for the proposed Eden Water District #4, Town of Eden, Erie County, New York for R & D Engineering; a Phase I for the proposed Line X-M10 installation, Town of Pendleton, Niagara County, New York for National Fuel Gas Supply Corporation, Buffalo; a Phase IA/B for the Belmont Senior Apartments on Indian Church Road, Town of West Seneca, Erie County, New York for Belmont Shelter Corp.; a Phase IA/B and Phase II for the proposed housing facility at 575 Cayuga Creek Road, Town of Cheektowaga, Erie County, New York for Peregrine Companies; a Phase I for the proposed Genesee Valley Central School, Belmont, Town of Amity, Allegeny County, New York for Nussbaumer & Clarke, Inc.; a Phase I for the proposed Model City clay mine, Town of Lewiston, Niagara County, New York for Benchmark Environmental Engineering & Science, PLLC; a Phase I and II for the Town of Lockport proposed sewer project, Niagara County, New York for Wendel Design; a Phase I for the South Lake Village Student Housing Site, North Campus, SUNY at Buffalo, Town of Amherst, Erie County, New York for Foit-Albert Associates; and a Phase IA for the proposed Soulstice Convention Center, Town of Pomfret, Chautauqua County, New York for R&D Engineering, P.C.

For the Savannah District Corps of Engineers, he has conducted background and archival research in preparation for the development of a Historical and Archaeological Resources Protection Plan (HARP) for the Beaufort-Marine Corps Air Station, Beaufort, South Carolina. The focus of the research was pre-installation land use activities. In addition, he has conducted archival and documentary research for Phase II investigations at six selected historic period and prehistoric archaeological sites at the U.S. Marine Corps Recruit Depot, Parris Island, South Carolina. He prepared the historic period discussion for these documents.

Since 1996, Mr. Steinback has also conducted historic research and prepared reports involving numerous local (Buffalo-area) projects, including a Phase IA cultural resources survey for the Main-LaSalle Revitalization Project (GEIS), City of Buffalo, New York for Phenix Environmental, Inc.; a Phase IA/B cultural resource survey for the proposed Images West Subdivision, Town of Greece, Monroe County, New York for LaDieu Associates P.C.; a Phase IA cultural resources survey for Woodlawn Beach, Erie County, New York for URS Greiner; a Phase I cultural resource survey for

the Marczak Property, Union Road, Cheektowaga, New York; a Phase IA for the Quaker Road Retail Development, East Aurora, New York for Benderson Development Company, Inc.; a Phase IA for the proposed Cayuga Road Sports Complex, Town of Cheektowaga, New York for TVGA Engineering, Surveying, P.C.;a Phase IA for the proposed Ellicott Creek Trailway Extension, Audubon Recreation Area, Town of Amherst, New York for URS Greiner Woodward Clyde; a Phase I for the proposed waterline construction for the Town of Newstead Water District #5, Erie County, New York for Wendel Design; and two Phase IA for the Chautauqua County Department of Public Facilities (the proposed Chadakoin Riverfront Park and Waterway Trail, Town of Ellicott and the proposed property acquisition adjacent to the Chautauqua County Airport, Town of Ellicott).

For the New York District Corps of Engineers, Mr. Steinback conducted background research and prepared the historic period and environmental background sections for the archaeological and historic structures investigation of selected sites within the Fort Hamilton Military Reservation, Fort Hamilton, Brooklyn, New York. He was also principal historian for cultural resource investigations of the Morris Canal Right-of-Way for the Joseph G. Minish Passaic River Waterfront Park and Historic Area, Newark, New Jersey, under subcontract to Northern Ecological Associates, Inc.

For the New York District, USACE, Mr. Steinback has conducted research and written historic period background sections for the Phase I survey at the airfield area at Seneca Army Depot Activities, Romulus, New York, and for the Phase I survey of the Upper Basin of the Green Brook Flood Control Project, Union and Somerset Counties, New Jersey, and its addendum for the Stony Brook Sub-Basin. He also edited the final report for each of the above mentioned projects.

For the Jacksonville District, USACE, Mr. Steinback edited the report for cultural resource survey of the Río Ojo de Agua flood protection project in the Municipio of Aguadilla, Puerto Rico, and the report for the cultural resource survey of the Río Loco flood protection project in the Municipio of Guánica, Puerto Rico.

For the New York District Corps of Engineers, Mr. Steinback prepared historic period overviews and compiled environmental and relevant background information for inclusion in integrated cultural resource management plans (ICRMPs) for Watervliet Arsenal, Albany County, New York, the Rotterdam Housing Areas (of Watervliet Arsenal), Schenectady County, New York, Fort Hamilton, Brooklyn, New York, and Picatinny Arsenal, Dover, New Jersey.

In 1996, Mr. Steinback co-authored the *Research Design: Phase I Cultural Resources Survey of Civil War and Postbellum Sites (1862-1892)* for U.S. Marine Corps Recruit Depot at Parris Island, South Carolina for Savannah District Corps of Engineers. In 1997, he conducted additional archival and background research and prepared the historic period write-up for Phase II archaeological investigations of six (6) sites at the Marine Corps Recruit Depot at Parris Island and for the historical and archaeological resources protection plan for the Marine Corps Air Station, Beaufort, SC.

In 1997, Mr. Steinback conducted archival research and prepared the historic discussion for the Phase II cultural resources site mitigation for the Proposed One-Stop Shopping Center (PX) at the USMA, West Point, New York, for the Phase III archaeological mitigation of Revolutionary War Hut #6 (USMA-81) at the USMA, and for the Phase I cultural resource investigation for the Long Pond-Stillwell Lake Timber Harvest at the USMA. In addition, he prepared the historic period background sections for an architectural study of 23 bridges and 159 flood proofing/buy-out structures for the Green Brook Flood Control Project, Middlesex, Union, and Somerset Counties, New Jersey, and for an architectural assessment of structures and potential historic districts at Picatinny Arsenal,

Dover, New Jersey.

PCI BUFFALO • TUSCALOOSA • MEMPHIS • TAMPA

Panamerican Consultants, Inc.•2390 Clinton St• Buffalo, NY 14227 •(716) 821-1650 •Fax(716)821-1607

FRANK J. SCHIEPPATI, Ph.D.
Senior Archaeologist

EDUCATION

Ph.D. (1983), M.A. (1978), B.A. (1976), Anthropology, State University of New York at Buffalo
Phi Beta Kappa, *Omicron* Chapter, SUNY/Buffalo, 1976; Graduate *Magna cum Laude*, SUNY/Buffalo, 1976; New York State Regents War Service Scholarship, 1973-1977; Four-year graduate research/teaching assistantship with stipend at SUNY/Buffalo.

EXPERIENCE

Dr. Schieppati is currently a Senior Archaeologist with the Buffalo Branch Office of Panamerican Consultants, Inc. (PCI) (September 1996-present). He is experienced in all phases of the cultural resources management process and has managed both small and large-scale projects including wastewater collection and treatment systems, water transmission and distribution systems, highways, flood control projects, urban archaeological investigations, utility pipelines, housing and commercial developments, and hazardous waste remediation projects. For example, he completed two Phase IA and a Phase IB surveys for two hazardous waste remediation projects (one is a Federal Superfund) in Niagara County for Conestoga-Rovers and Associates. He has authored over seventy (90) cultural resources management reports for various clients including the U.S. Army Corps of Engineers (USACE), the USEPA, the New York State Museum, the New York Department of Transportation, the New York Department of Environmental Conservation (NYSDEC), municipalities and utilities throughout New York State, as well as engineering firms and other private organizations.

During his career, Dr. Schieppati has served as Director of Environmental Services for the City of Niagara Falls, New York (1992-96). As the city's principal environmental officer, he directed a small staff of environmental professionals charged with the oversight of all environmental issues where the city had interest or regulatory authority. He directed the operation, planning, and application of the city's Geographic Information System (GIS), and served as the City's preservation planner. Dr. Schieppati has also worked for the NYSDEC, most recently as Senior Environmental Analyst in Buffalo, New York (1991-92), where he served as project manager for interdisciplinary reviews of environmental permit applications and reviewed a variety of environmental documents (EISs, EIDs and EAs), SEQRA permitting process, among other responsibilities. He also worked as an Environmental Specialist (Cultural Resources) at the Central Office in Albany (1983-91).

REPRESENTATIVE PANAMERICAN CONSULTANTS, INC. EXPERIENCE

Dr. Schieppati has served as Project Director or Principal Investigator for at least 50 local (Buffalo area) cultural resources or environmental projects, including Phase IA survey and EIS for the Main-LaSalle Revitalization Project GEIS, City of Buffalo; Phase IA surveys for the proposed Cayuga Road Sports Complex, Town of Cheektowaga, New York; for the proposed Ellicott Creek Trailway Extension, Town of Amherst, New York; and for the Woodlawn Beach State Park Improvements, Town of Hamburg, New York; and Phase IA/IB surveys for the National Fuel Gas Line K

Realignment, Town of Orchard Park, New York; for the proposed French Road Development in West Seneca, New York; for proposed waterline construction in the District #5, Town of Newstead, New York; and for the proposed Quaker Road Retail Development, East Aurora, New York. His is serving as assistant project manager on PCI's service contract with Niagara Mohawk Power Corporation. Dr. Schieppati also prepared a Generic Environmental Assessment for the Niagara Falls International Airport for the Niagara Frontier Transportation Authority. He most recently served as Senior Archaeologist for the new Buffalo Convention Center EIS and Phase IA cultural resource investigation; and Senior Archaeologist on the archaeological monitored of the removal of overburden from the former Commercial Slip of the Erie Canal for the Empire State Development Corporation.

Dr. Schieppati recently completed or is serving as principal investigator on five fiber optic project including a Phase IB cultural resource investigation for a 35-mile long fiber optic cable route east of the Hudson River between the Towns of Hudson and Pleasant Valley, New York, for Telergy, Inc.; a Phase IA and Phase IB investigation for the New York portion (approximately 83 miles) of a proposed Cleveland-to-Buffalo fiber optic cable line for Parsons Brinckerhoff Network Services, Inc. and Kiewit Construction; a Phase IA and Phase IB cultural resource survey for 25 miles of fiber optic lines in Rensselaer County, NY to the Massachusetts border for Telergy, Inc. (The second phase of the project will include an additional 25 miles in Massachusetts); Phase IA in Oswego, NY for Telergy. Inc.

For the New York District, USACE, Dr. Schieppati has served as Preservation Planner for four Cultural Resources Management Plans (CRMPs): Watervliet and Picatinny Arsenals, Rotterdam Housing, and Fort Hamilton. He has also served as Principal Investigator on three Phase I surveys, two Phase II investigations and a Phase III data recovery project at the U.S. Military Academy, West Point, Orange County, New York, as well as Phase IB investigations at Picatinny Arsenal, Morris County, New Jersey. In addition, Dr. Schieppati has been the Principal investigator for Phase II investigations for the Joseph G. Minish Passaic River Waterfront Park project of the Morris Canal right-of-way, Newark, New Jersey, and for a Phase I/II cultural resources investigation at the Robert E. Lee House, Fort Hamilton, Brooklyn, New York.

CAREER HISTORY

Director of Environmental Services, City of Niagara Falls, New York (1992-96). As the city's principal environmental officer Dr. Schieppati directed a small staff of environmental professionals charged with the oversight of all environmental issues where the city had interest or regulatory authority. He directed the operation, planning, and application of the city's Geographic Information System (GIS), supervised the review of all City actions and approvals for potential environmental impacts, served as the City's preservation planner, and acted as recycling coordinator. Dr. Schieppati produced the City's first solid waste management plan, devised a plan for composting municipal yard, and coordinated the City's household hazardous waste day. He served as community ratings system coordinator (flood plain management), acted as the city's demographer and conducted research on population and census data, served as emergency response coordinator and supervised enforcement and issued citations relative to the city's Clean Neighborhoods and other ordinances. He represented the city on the PRP Steering Committee for the Niagara County Refuse Disposal Superfund Site and sat on the board of the Love Canal Area Revitalization Agency (Treasurer, 1995). While with the city, Dr. Schieppati performed the lithic analysis on two Phase III mitigations for prehistoric sites in the Towns of Amherst and

Cheektowaga. The sites were being impacted by the construction of a Wal-Mart and a county overflow retention facility. He also authored the Phase IA survey for the Niagara County Refuse Disposal (Superfund) Site.

After leaving the city and just prior to joining PCI, Dr. Schieppati conducted a Phase IB survey for the Niagara County Refuse Site to examine an archaeologically sensitive, remnant glacial drumlin. He conducted a Phase IA survey for the Gratwick-Riverside Park, another hazardous waste site (City of North Tonawanda), that focused primarily on assessing the aesthetic impacts of the remediation project on the Niagara River. He also conducted a Phase II survey on suspected historic period sites in the City of Niagara Falls. The sites will be impacted by construction associated with an affordable housing project.

Senior Environmental Analyst, New York State Department of Environmental Conservation, Region 9, Buffalo, New York (1991-92). In this position, Dr. Schieppati served as project manager for interdisciplinary reviews of environmental permit applications relating to air emissions, stream disturbances, excavation and fill activities, water supply and transmission projects, flood plain development, the State Pollutant Discharge Elimination System (SPDES), freshwater wetland impacts, activities within coastal erosion hazard areas, and water quality certifications. He served as advisor to other project managers on issues relating to the State and National Historic Preservation Acts (SHPA/NHPA), administered the State Environmental Review Process associated with the State Revolving Loan Fund for Water Pollution Control Projects, and served as Terminal Manager and Computer Coordinator. He reviewed Environmental Impact Statements, Environmental Information Documents, Environmental Assessment Forms, and Requests for Lead Agency Status within the framework of, and in compliance with, the State Environmental Quality Review Act (SEQRA), as well as a variety of other SEQRA reviews.

Environmental Specialist (Cultural Resources), New York State Department of Environmental Conservation, Central Office, Albany, New York (1983-91). In this position, Dr. Schieppati's primary responsibilities included the review and oversight of the cultural resources management aspects, within the framework of the National Environmental Policy Act (NEPA), of the U.S. Environmental Protection Agency's construction grants program (Clean Water Act) in New York State (e.g. the New York grant in 1985 was about one-half billion dollars). He conducted reviews of Agency direct actions (unit management plans, timber sales, land acquisitions, etc.), Local Waterfront Revitalization and Development Plans, and Environmental Impact Statements through the internal SEQR committee.

While with the NYSDEC in Albany, Dr. Schieppati conducted approximately thirty cultural resources surveys. These surveys included all phases of cultural resources work from Phase IA to preparing National Register Nominations, MOAs, and effect documentation.

Dr. Schieppati also served on a number of special task forces while with the NYSDEC including: The Hudson River PCB Dredging and Encapsulation Project (Sponsor Group), Low Level Radioactive Waste Site (Site Selection Task Force), The Half-Moon Cogeneration Project (EIS Review), Fort Drum Study Group, and Utility Line Undergrounding Task Force,

Dr. Schieppati also conducted two special research studies with the support of the NYSDEC and the USEPA. The first was a cost-benefit analysis of cultural resources survey conducted in New York between 1975 and 1985 under the construction grants program. The second was the development of an empirical model of prehistoric archaeological site location for an area encompassing Livingston

County, New York. The resulting mathematical model was constructed through a statistical analysis of a location's associated environmental variables (soils, topography, hydrology, etc.). The project was a pilot study that was to be the first step in developing a state-wide model.

Project Director, SUNY/Buffalo Archaeological Survey (1980-83). Dr. Schieppati's duties at the Archaeological Survey included the direction of all phases of cultural resources surveys dealing with both the historic and prehistoric periods, as well as architectural surveys and bridge inventories. In addition, for five months in 1980, Dr. Schieppati was Assistant Field Director for the Survey conducting a Stage I and II archaeological and architectural surveys of the proposed Rte 31 relocation (two 1,000 ft corridors, 17 miles long) in Wayne County, NY for the NYSDOT (PIN 3037.00). He was a field assistant in the 1975 Highway Program.

ADDITIONAL/SPECIAL SKILLS

Land surveying and cartography; expertise in the following microcomputer software packages: Windows and MS-DOS, ENABLE (integrated); Lotus 1-2-3, Excel, Quattro Pro (spreadsheets); dBase III+, IV and FoxBase (databases); WordPerfect and Word; Harvard Graphics (presentation graphics); SURFER (3-D graphics and cartography); ProDesign II and DRAFIX CAD ULTRA (CADD/CAM); Bitcom, Procomm II, and SmartCom (communications); Cameo, Aloha, Marplot and EIS (emergency response programs); and a working knowledge of ArcView and ATLAS GIS. Knowledge of Arc/Info GIS software.

C

Economic Impacts

would be required to generate the annual incremental economic impacts on or benefits to the region. This section provides an estimate of the economic return on the taxpayer's dollar associated with the various convention center alternatives.

Economic return is defined here in the broadest sense as the return on social capital that considers all quantifiable costs and benefits of running the convention center, regardless of who pays the costs or enjoys the benefits. E & E examined the expected economic impact or stimulus from the convention center alternatives from an economy-wide perspective.

The convention center is a form of public investment that has the ability to act as an economic catalyst by importing spending to our region. The analysis considers the net economic impact of operating the convention center on the state economy. The economy-wide perspective is the most comprehensive measure of the center's impact and has been used in cost-benefit analyses to examine the role of the government in directly facilitating economic activity.[1] To solely examine the fiscal return of the convention center investment in terms of projected tax revenues would not acknowledge the convention center's ability to add wealth to our economic base as measured by regional gross domestic product. This measure is the broadest measure of economic activity. As one analyst has commented, "Hence a proper evaluation of a public investment differs significantly from the purely profit-oriented evaluation of a normal private investment. The latter requires only that direct consumer benefits exceed costs so that the firm can charge prices in excess of average costs and thereby earn a profit. By contrast, in evaluating a public investment, one must take into account the additional net benefits that accrue in other industries due to the multiplier effect."[2]

C.2 Assumptions Employed – Convention Center Demand and Financial Projections

C.2.1 Demand Projections and Assumptions on Convention Center Patronage

The demand and financial projections will be described first because they form the basis for the annual recurring economic impacts of convention center operations. The updated demand projections form the basis for both the financial projections and the

[1] See Edward M. Gramlich, "A Guide to Benefit-Cost Analysis – 2nd Edition", p. 8.

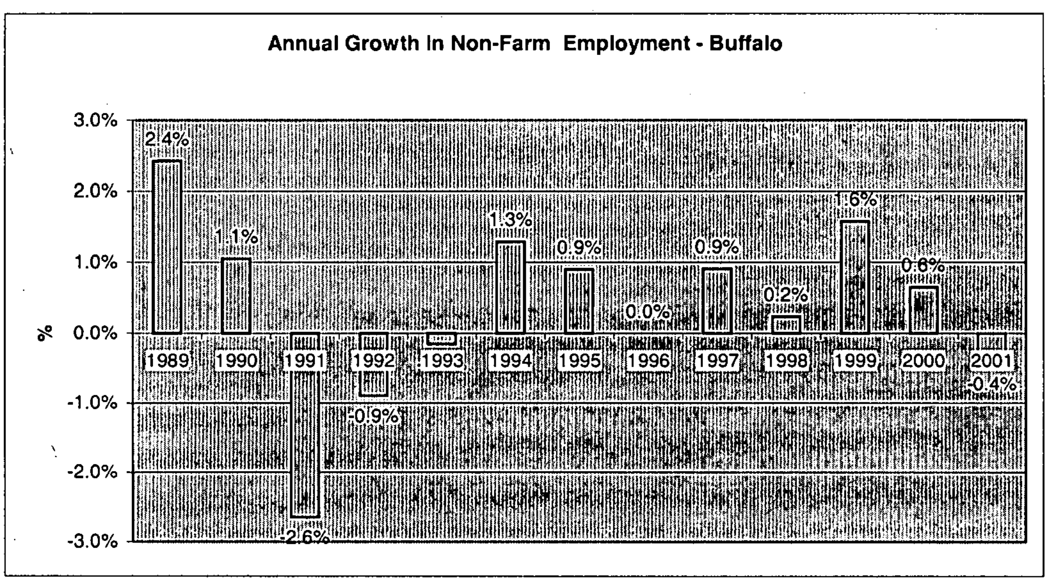
[2] See Roger G. Noll and Andrew Zimbalist, Editors, "Sports, Jobs & Taxes", pp. 60-61.

expected increase in annual out-of-town attendance after the new center is constructed. The updated demand projections were formed based on assessing September 11th's impact on tourism and the recession as well as considering expectations for a recovery. In addition, long-term factors affecting the region were also evaluated. The demand projections acknowledge the recession's impact on regional economic activity and the declining trends in both convention events and attendance since 1997. In light of recent events, the EIS also reviewed trends in regional economic growth as measured by employment, population, and tourist patronage. The consideration of the following factors is responsive to critics, such as Professor Sanders, who assert that convention center impact estimates often are not linked to trends in economic activity when considering demand and patronage estimates (Sanders 1999).

In forming assumptions concerning convention center demand and future patronage, both macro-level or economy-wide and micro-level (facility-specific) indicators were examined.

Macro-Level Indicators

To assess the overall health of the regional economy, the year-to-year change in total non-farm employment was evaluated for the Buffalo region. Employment is the source of household incomes. Companies laying off workers are also less likely to spend money on advertising and sponsor conventions and meetings. Furthermore, discretionary household spending that would normally be available for household attendance at conventions, meetings, and tradeshows may also be cut back during this period of lower economic activity.



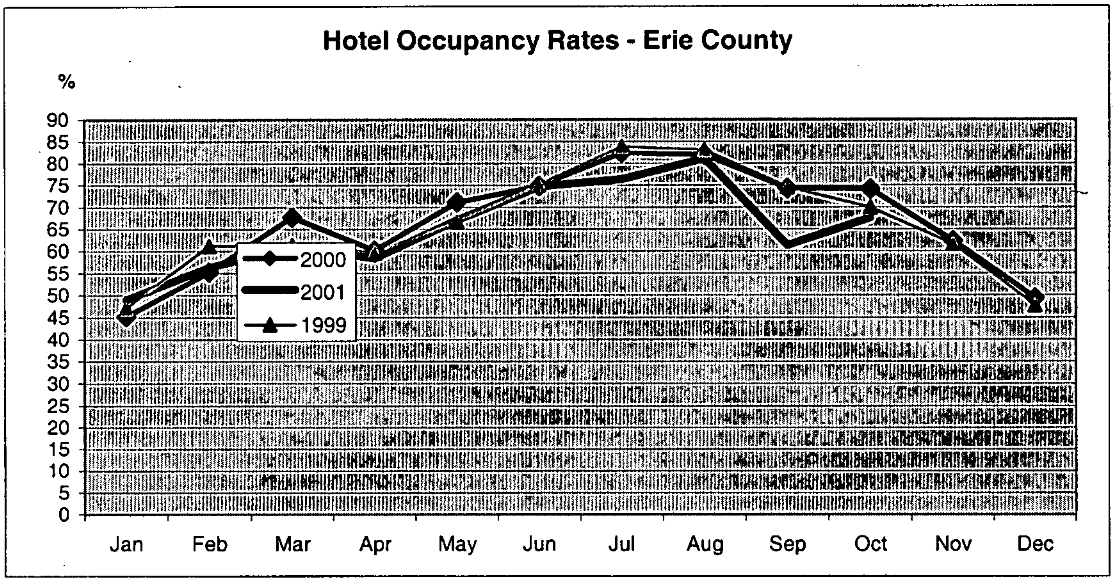
The chart above shows the year-to-year growth in non-farm payroll employment for Buffalo (U.S. Bureau of Labor Statistics, http://www.bls.gov/eag/eag.ny_buffalo.htm). The chart confirms the contraction in regional economic activity. Employment growth in Buffalo has been slowing considerably since mid-1999.

The data for 2001 reflects an average for the year to October. The chart shows that for 2001 through October, employment levels fell by almost half a percent compared to the previous year. Expectations for a rebound in economic activity in our region vary with some economists predicting a recovery happening in the second quarter of 2002.

Hotel Market Conditions

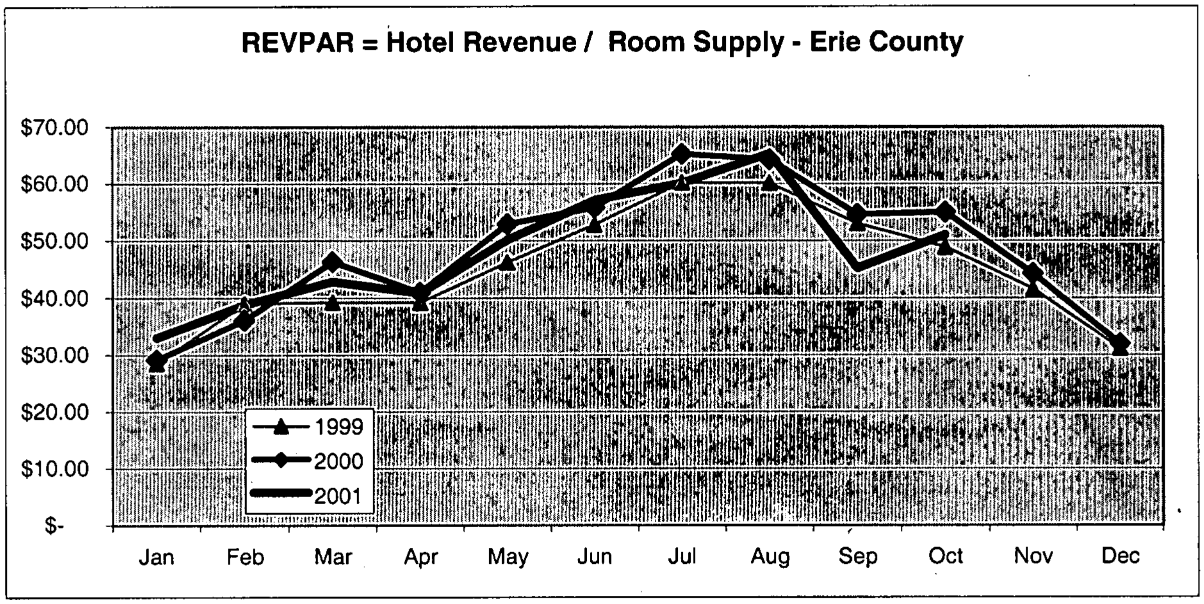
To gauge the impact of September 11th and the current recession on tourist patronage, the EIS also reviewed data on the hotel market for Erie County. Hotel occupancy rates and revenue per available room are two indicators or barometers of hotel market health and reflect the level of tourist activity as well as corporate patronage. The following chart shows the hotel occupancy rate for the last several years for Erie County (Smith Travel Research, Standard Historical Trend, Erie County, January 2000 – October 2001, courtesy of CVB.)

The chart reflects the decline in hotel occupancy following the September 11th disaster. However, even before September 11th, hotel occupancy in 2001 was consistently lower than the levels experienced in 2000. The chart shows that the hotel market was affected by the regional economic slowdown even before the September 11th disaster. The disaster served to exacerbate the existing weak market conditions. The data since September 2001 show that hotel occupancy rates continue to lag behind previous years that experienced relatively stronger economic growth. Surveys of hospitality and tourist professionals expect hotel markets to be slow in recovering. Cities with weak population growth, such as Buffalo, are expected to recover relatively more slowly than other markets. (WSJ, October 17, 2001, "Lodging Markets Seen Recovering – Slowly").



Because the EIS also considers the impacts flowing from the construction of a headquarters quality hotel, the following hotel analysis has also been included because it is relevant to the relationship between tourist demand and hotel market conditions. The analysis is also relevant to the financing of convention center operations because the center deficit is financed from hotel tax revenues.

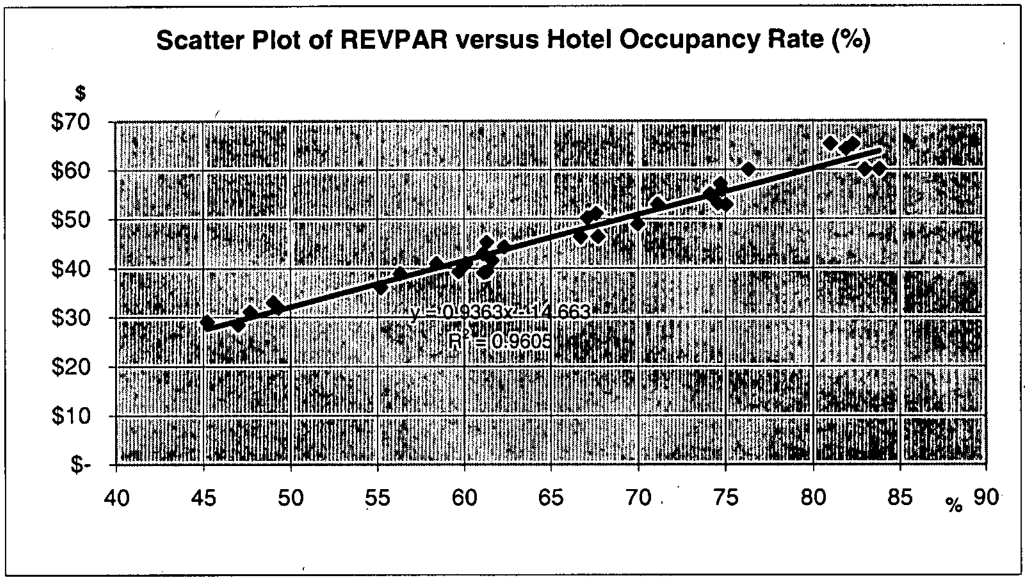
The following chart shows the impact of the recent economic slowdown and the September 11th disaster on a measure of hotel financial performance called Revenue Per Available Room (REVPAR). REVPAR is calculated by dividing total hotel revenues by the supply of hotel rooms. Available hotel rooms are calculated by taking the census of rooms in Erie County and multiplying this figure by the number of days in the particular month. REVPAR is a measure of price and occupancy and accounts for recent additions to the hotel room inventory. The source of the data is Smith Travel Research.



The chart shows that REVPAR fell quite sharply in September due to the events of September 11th. Furthermore, the October 2001 rebound is still appreciably lower than last year's REVPAR level.

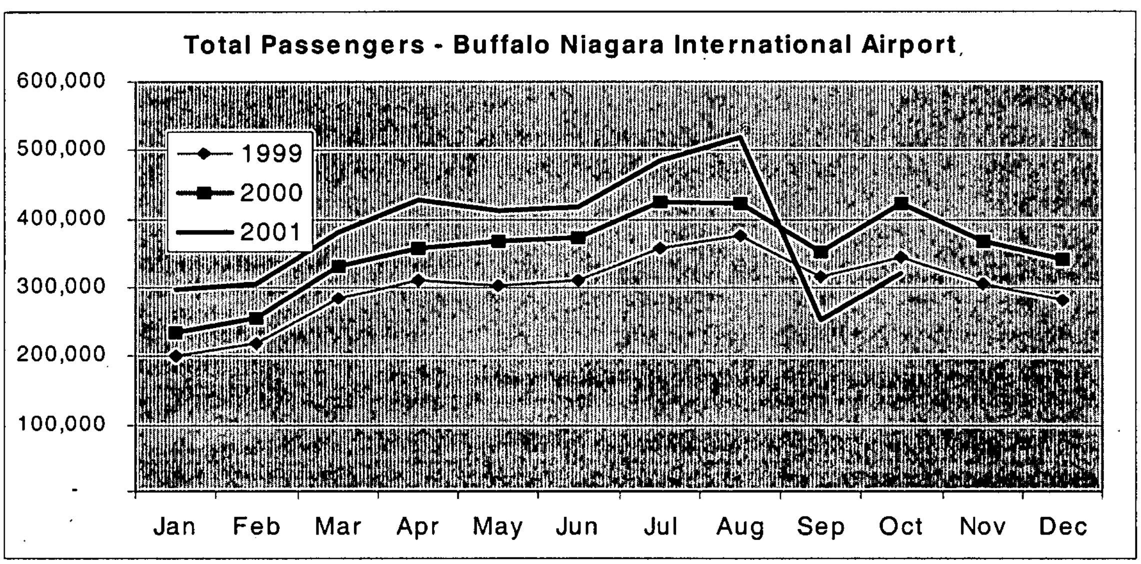
Hotel revenues are quite sensitive to fluctuations in occupancy rates. The relationship between REVPAR and hotel occupancy is depicted in the following chart. The chart shows that a 10% change in hotel occupancy results in a 22.5% or $9.37 change in REVPAR.

In sum, the above charts indicate that the September 11th disaster and the recession have appreciably weakened hotel revenue performance compared to 2000. A recent study of nationwide hotel industry performance found that many hotels are expected to have difficulty meeting debt service payments next year. The study was based on the financial statements of 3,300 hotels nationwide and found that REVPAR is expected to fall by 9.1% in 2002 (Wall Street Journal, "More Hotels Won't Be Able to Pay Debt From Operations, Study Says", October 29, 2001)



Air Traffic

Air traffic, measured by total passengers coming into and leaving the Buffalo Niagara International Airport, had been trending upwards prior to September 11th. The airport expansion and the addition of new lower-cost carriers had succeeded in boosting traffic. However, passenger volume was severely affected by the September 11th incident. While traffic has rebounded since September 11th, it is still lower than the levels experienced in the last two years. The following chart displays the trends through October of 2001.



Source: NFTA, Buffalo Niagara International Airport

Micro-Level Indicators

Several themes formed the basis for the updated demand projections. The first theme relates to the new convention center resulting in higher effective utilization by providing the ability to host concurrent events as one event is being taken down and the next event is being installed. The ability to stage events is expected to smooth out the variation in annual attendance and allow for more level usage throughout the year. In addition, the larger main exhibit hall will provide the ability to host events with higher average attendance than the existing facility. Incremental attendance will also be boosted by the new convention center's ability to more effectively accommodate various groups and events associated with an updated facility. It is assumed that the new convention center will also allow Buffalo to compete for new larger events on a higher per-square-foot scale.

The projections were carried out over a 10-year period and acknowledge the impacts of collateral economic development activity that has already been planned for the downtown Buffalo and surrounding area. These latter developments, such as the Adelphia headquarters project, Inner Harbor restoration, cultural amenities restorations (e.g., the Darwin Martin House), possible casino activities, upgrading Niagara Falls State Park, redevelopment of the City of Niagara Falls, and other developments are expected to contribute to increases in events and attendance locally and regionally. These projections assume continued strong regional marketing efforts by the CVB and other economic development agencies. The CVB has identified a potential universe of over 1,000 conventions that could be pursued with the new larger center. The attendance associated with this universe amounts to over four million attendees.[3] Table C-1 provides a summary of the demand projections. Total attendance includes both out-of-town attendees and local event patronage.

It should be noted that economic impacts are calculated based on only a portion of the total projected attendees displayed in Table C-1 who are estimated to be from outside of the Buffalo MSA. Out-of-town attendees were estimated by applying percentage shares (originally derived from surveys) to the total attendees at conventions, trade shows, and OTM meetings. The shares were obtained from the Johnson Associates study, courtesy of the CVB, and reflect the proportion of delegates who are from out of town.

[3] Information provided by Richard Geiger, President of the Buffalo-Niagara Convention & Visitors Bureau on 9/7/01.

Table C-1 Summary of Demand Projections for Convention Center Usage

	2002	2004	2006	2007	2008	2010
Mohawk Alternative						
Total Events	216	212	240	250	261	292
Conventions	18	18	20	21	22	24
Trade Shows	11	11	13	13	14	15
Total Attendance	86,947	379,208	417,128	446,327	477,570	546,770
Estimated non-local attendees*	38,532	37,761	41,537	58,023	62,084	73,814
Average Attendance per Event (All Events)	1,793	1,793	1,738	1,785	1,830	1,870
Waterfront Alternative						
Total Events	216	212	233	241	249	267
Conventions	18	18	19	20	21	22
Trade Shows	11	11	12	13	13	14
Total Attendance	386,947	379,208	417,128	431,728	446,838	478,664
Estimated non-local attendees*	38,532	37,761	41,537	42,991	44,684	47,866
Expansion Alternative						
Total Events	216	212	209	215	221	234
Conventions	18	18	17	18	18	19
Trade Shows	11	11	11	11	12	12
Total Attendance	386,947	379,208	375,273	384,655	396,195	420,323
Estimated non-local attendees*	38,532	37,761	37,369	38,303	39,619	42,032
Modified No-Action Alternative						
Total Events	216	209	209	209	209	209
Conventions	18	17	17	17	17	17
Trade Shows	11	11	11	11	11	11
Total Attendance	386,947	375,338	375,338	375,338	375,338	375,338
Estimated non-local attendees*	38,532	37,376	37,376	37,376	37,534	37,534
No-Action Alternative						
Total Events	215	199	184	176	168	152
Conventions	18	17	15	15	14	13
Trade Shows	11	10	10	9	9	8
Total Attendance	384,958	357,046	329,134	315,178	301,222	273,310
Estimated non-local attendees*	38,334	35,554	32,775	31,385	30,122	27,331

Source: Buffalo Convention Center Historic Data and Ecology and Environment Calculations.

* Based on applying estimated percentages for out-of-town attendees at conventions, trade shows and OTM meetings.

For example, estimated out-of-town attendance in 2007 for the Mohawk alternative is projected to be 58,023 attendees, or about 13% of the total (446,327) projected for 2007. Attendance at consumer shows is projected to be approximately 323,953 attendees, or 72% of the total. Consumer shows, however, attract predominantly locally based attendees. Differences in the demand projections for all of the alternatives are discussed below.

The economic impact projections are based solely on estimates of out-of-town attendees. These delegates require hotel accommodations and would spend money at restaurants, shops, theatres, and on transportation. It is these delegates who would serve to revitalize the downtown area, especially during the evenings, because they would spend money on consumption-related activities. These out-of-town attendees are the spending catalysts whose direct expenditures form the basis for the projected economic impacts. In economic impact analysis language or jargon, the combined expenditures of these delegates represent "direct expenditures" that are subsequently multiplied throughout the local economy. The recipients of these expenditures will re-spend a portion of the money on supplies, wages, and other purchases.

C.2.2 Financial Projections and Assumptions for Convention Center Operations

The updated financial projections were carried out using the following procedures. Past operating statements were evaluated and the revenue and expense projections were linked to the projected increases in events and attendance from the demand projections. Increases in costs and revenues were proportional to the proposed larger-scale center. The existing cost structure of the center was evaluated using common size ratios and other comparisons of revenues and costs to facility size and effective utilization. The projections are driven by the demand assumptions that calculated the number of annual events through 2010 for the scenario that a new convention center would be built within the CBD.

Over the next two years (before the new center is in use) the projections acknowledge the impacts of the recession. Regional economists have noted that the Buffalo area tends to lag behind the U.S. economy as a whole in recovering from recessions[4]. In other words, if U.S. economic growth resumes in the second quarter of 2002, it is plausible that growth in Buffalo will occur several quarters later. The projections take this information into account

[4] Conversation with Richard Deitz, Regional Economist, Federal Reserve Bank of Buffalo, 12/31/01.

and are considered to be conservative in nature, but not overly so. For 2002 and 2003, the financial projections are consistent with slower demand and fewer events per year compared to the historic average annual number of events. The average annual number of events between 1997 and 2000 is 248.

The projections are based on positive annual growth in attendance occurring in 2006, following the completion of the selected alternative convention center. The projections for the No-Action Alternative are based on a continued decline in attendance, while the projections for the Modified No-Action Alternative are based on attendance stabilizing at the projected year 2003 level of 379,208 attendees. The Modified No-Action Alternative is based on assuming that modest capital improvements for parking (300 spaces) and immediate facility needs (such as replacement of depreciated environmental systems and cosmetic improvements) will occur over the next two years at a cost of approximately $10 million.

The projections also assume an eventual recovery in national and regional economic activity.

However, the reader must be aware that projected growth in events and attendance will resume from a much lower base than previously completed studies calculated. This is especially important in comparing past economic impact studies that were formulated during different periods of the business cycle, when the economy experienced a higher rate of growth.

Total actual attendance at the existing center fell by approximately 11% in 2001 compared to 2000. We expect attendance to continue to fall in 2002 (by between 3% and 3.5%) and to stabilize in 2003.

The financial projections are predicated on certain assumptions relating to the effective utilization of the facility over the next 10 years. It was assumed that the new facility's ability to stage concurrent events while other events and exhibits are being set up and taken down would boost the effective utilization (in terms of occupied square feet of space) over the projection period. However, the financial projections assume a gradual increase in utilization over time. The larger exhibit hall space will afford opportunities to host larger events using more facility space and attracting greater attendance per event in some instances.

The financial projections were carried out over a 10-year period consistent with accepted economic principles. Projecting operational performance beyond a 10-year period would add uncertainty

to the projections. Given the 10-year length of the projection period, the projections also assume that event growth will benefit from other collateral economic development activities that are expected to take place in the region over the next 10 years. These development activities will contribute to attracting more convention-related business and visitors to the new and/or expanded/renovated convention center.

The key variable in these financial projections is the projected increase in the number of events and attendance. Historic relationships were examined to calculate the average number of days per event and the average attendance per type of event at the existing convention center over the last five years. The projections for rental income and net food and beverage revenues are based on the associated attendance implied by the number of projected events and the average revenue per attendee for each revenue stream. Based on historic actual data for the past five years, all revenue streams were projected forward using an inflation index. Inflation was assumed to increase by 2.5% per year on average over the projection period.

In addition, certain assumptions were taken from the Johnson study (Johnson 1996) regarding the new revenue streams to be earned at the new facility. These incremental revenue streams relate to parking revenue and service and equipment revenue, reimbursable expenses, and other income and interest. The Mohawk, Waterfront, and Expansion alternatives all assume that 1,200 parking spaces will be constructed and will be phased in over a two-year period. The Modified No-Action Alternative assumes that 300 parking spaces will be added over 2002 and 2003.

The employee costs assume the addition of new full-time employees to the convention center. Projected operating costs were also adjusted for the increased convention center scale and inflation. Table C-2 provides summary details on the financial projections over the next 10 years.

Table C-2 Financial Projections, New Buffalo Convention Center for Various Alternatives

	2002	2004	2007	2010
Mohawk Alternative				
Operating Revenue	888,750	893,566	4,051,960	5,403,669
Operating Expenses	1,919,767	2,053,300	6,782,742	9,521,112
Net Operating Income	(1,031,017)	(1,159,735)	(2,730,781)	(4,117,443)

Table C-2 Financial Projections, New Buffalo Convention Center for Various Alternatives

	2002	2004	2007	2010
Operating Margin (operating revenue/operating expenses)	46.3%	43.5%	59.7%	56.8%
Operational subsidy per occupied square foot	$0.110	$0.112	$0.122	$0.135
Waterfront Alternative				
Operating Revenue	888,750	893,566	3,937,766	4,947,789
Operating Expenses	1,919,767	2,053,300	6,675,894	9,076,750
Net Operating Income	(1,031,017)	(1,159,735)	(2,738,128)	(4,128,960)
Operating Margin (operating revenue/operating expenses)	46.3%	43.5%	59.0%	54.5%
Operational subsidy per occupied square foot	$0.110	$0.112	$0.127	$0.148
Expansion Alternative				
Operating Revenue	888,750	893,566	3,591,107	4,473,127
Operating Expenses	1,919,767	2,053,300	6,351,538	8,614,079
Net Operating Income	(1,031,017)	(1,159,735)	(2,760,431)	(4,140,952)
Operating Margin (operating revenue/operating expenses)	46.3%	43.5%	56.5%	51.9%
Operational subsidy per occupied square foot	$0.110	$0.112	$0.145	$0.169
Modified No-Action Alternative				
Operating Revenue	1,042,700	1,136,556	1,182,407	1,231,784
Operating Expenses	2,054,158	2,271,841	2,680,245	3,438,811
Net Operating Income	(1,011,458)	(1,135,285)	(1,497,838)	(2,207,027)
Operating Margin (operating revenue/operating expenses)	50.8%	50.0%	44.1%	35.8%
Operational subsidy per occupied square foot	$0.115	$0.132	$0.172	$0.258
No-Action Alternative				
Operating Revenue	884,182	841,344	772,648	697,989
Operating Expenses	1,915,780	2,006,333	2,296,848	2,918,502
Net Operating Income	(1,031,598)	(1,164,989)	(1,524,200)	(2,220,512)
Operating Margin (operating revenue/operating expenses)	46.2%	41.9%	33.6%	23.9%
Operational subsidy per occupied square foot	$0.118	$0.146	$0.220	$0.358

Note: Operating revenues do not include the operational subsidy from Erie County.

The above projections (for the Mohawk, Waterfront, and Expansion alternatives) assume that the new convention center will become fully operational in 2007. The operational subsidy is expressed on a per-square-foot of utilized space or occupied-space

basis. It is assumed that following the center's completion, utilization will increase gradually over the next several years in line with the new convention center's ability to host concurrent events and to attract larger events that require more square feet. The demand projections assume that average attendance per event increases slightly over time until the year of stabilized demand is reached. Given the proposed larger scale of the facility, the financial projections for the Mohawk, Waterfront, and Expansion alternatives result in a larger annual operational subsidy requirement.

A later section of the EIS compares an estimate of the incremental hotel tax generated by the projected out-of-town attendees for the new convention center to the projected estimate of the operational subsidy.

C.3 Annual Economic and Fiscal Impacts of Convention Center Operations

To calculate the economic impacts from ongoing convention center operations, this EIS relies on methods that are consistent with past studies, employ relatively conservative assumptions, and follows generally accepted economic principles. This EIS relies on a data analysis of historic convention center patronage in Buffalo that analyzed the distribution of events, attendance, and square feet occupied across the year for the years 1996 to 2000. Events were examined in detail and were evaluated for their ability to attract out-of-town delegates and exhibitors. It is these relevant visitors who are most responsible for new spending stimulus being injected into the local economy.

Economic impacts are comprised of direct, indirect, and induced effects. Direct effects are those related to the initial spending in the economy. For example, a delegate would initially spend money at a hotel. The hotel in turn would spend money on supplies. The hotel suppliers would need to purchase goods and services to produce the room service, meal, and linens/furniture provided to the delegate. These purchases as well as succeeding rounds of spending by other suppliers to the hotel suppliers are known as indirect effects. Induced effects represent the changes in output, employment, and earnings on all local industries caused by the expenditure of new household income generated by the direct and indirect effects from the initial direct spending.

This EIS relies on the Impact Analysis for Planning (IMPLAN Professional Version 2.0, MIG, Inc.) economic input-output modeling software that was also used by Johnson Associates and KPMG in

previous studies. In this manner, the analysis provides continuity and consistency in evaluating these impacts. The significance of this treatment is that policymakers can focus on the various assumptions that were used instead of the underlying mechanics of the how the impacts were calculated. First the direct spending, associated with the existing or base-year operation of the convention center was calculated. The economic impact flowing from spending by out-of-town attendees for 2007, when the new center would be fully operational, was then calculated.

To calculate direct spending by relevant out-of-town convention, tradeshow, and meeting attendees, the following procedures were used:

- Calculated relevant out-of-town attendance or patronage for various types of events with a relatively high proportion of non-local visitors. The percentages used to estimate the proportion of out-of-town attendees of conventions, trade shows, and OTM meetings were obtained from Johnson Consulting;
- Obtained updated spending per day and length-of-stay estimates from the International Association of Convention and Visitors Bureau (IACVB). The IACVB data for spending per day was allocated across various relevant categories; hotel/lodging, food, recreation, gas, sightseeing, retail, parking, etc.;
- Adjusted the IACVB spending estimates to the Buffalo area by using cost indexes obtained from the 2001 Corporate Travel Index published by *Business Travel News*;
- Multiplied the number of relevant attendees by the spending per day multiplied by the average length of stay for various events to arrive at estimated total direct spending;
- Grouped the direct, or initial, expenditure data into various Standard Industrial Classification (SIC) categories that are necessary inputs to the economic input-output software model (IMPLAN); and
- Used the IMPLAN model to estimate the indirect, induced, and total economic impacts of the baseline direct-spending amounts.

C.3.1 Convention Center Attendance

To estimate the direct spending impact of the current convention center (the baseline), this EIS first focuses on isolating out-of-town visitors. Spending associated with out-of-town visitors is the relevant metric here because the center should be evaluated on its ability to attract outside dollars or incremental spending to the western New York region. The impact analysis includes out-of-town delegate, exhibitor, and association spending and excludes locally originated spending as much as possible. Spending by in-town or local attendees at consumer shows, for example, is not counted as a new economic impact. This sort of spending represents a transfer of income of existing area residents from one sector of the local economy to another sector. The terms *incremental* or *net new spending* have been used to characterize the flow of dollars that originate from outside our region.

Out-of-town delegate spending and their associated impacts would not exist in our region but for the proposed convention center. By considering only out-of-town delegate spending, the projections focus on the net economic impact on our region rather than the gross impact. For the purposes of this analysis, the region is defined as Erie County. Impact projections are also provided for New York State. This method is consistent with past studies and generally accepted economic principles.

To isolate out-of-town visitors, the EIS relies on data from convention center operations for the years 1996 to 2000. To calculate the relevant attendance (from which out-of-town visitors are drawn) all events and attendance for conventions, trade shows, and out-of-town meetings were segregated. These events have the potential to have the largest incremental impact in terms of hosting out-of-town delegates requiring hotel accommodations, restaurants, and entertainment. This EIS relied on estimates from past studies (Johnson, KPMG) on the percent of event attendees who are most likely from outside the Buffalo/Erie Metropolitan Statistical Area (MSA) based on national, state, and regional types of events. Relevant attendance included delegates and exhibitors with origins from outside of this MSA.

It should be noted that the pool of total events from which out-of-town visitors were drawn was the most recent full year available, 2000. It is acknowledged that this year reflects a lower level of economic activity than in previous years but it was used to present a conservative, more realistic (and recent) estimate of the existing economic impact of the convention center. Because the extraordinary events of 2001 affected tourism in an unusual manner, it was

decided to use the year 2000 as the baseline estimate of the center's current economic importance.

The baseline and projected year 2007 and year 2010 impacts analyses include impacts flowing from the initial direct expenditures of the following groups:

- Out-of-town delegates;
- Exhibitors;
- Associations;
- Convention center employees; and
- Convention center operational spending.

Spending by convention center employees was estimated using the annual total wages and salaries information obtained from the existing convention center's operational income statement. To estimate disposable income of these employees, 80% of this amount was used in the projections.

Convention center operational spending was also taken from the income statements (both existing and projected) and segregated into industry categories for use with the IMPLAN model.

C.3.2 Annual Event Attendance and Expected Spending

This EIS relies on conservative assumptions in estimating the projected amount of annual events and attendance that could be expected with the various convention center alternatives. This EIS documents the distribution of events and attendance across a given year for the most recent full year, 2000. The average attendance per event day and the average square feet utilized per event day were evaluated. Given that the new convention center will result in a doubling of exhibit space, it was decided to base the expected increase in patronage on the convention center's anticipated ability to simultaneously stage events. In addition, the larger scale also allows the convention center to compete for a new group of events requiring more space than currently can be accommodated by the existing facility. Doubling the exhibit hall space will allow additional events to continue uninterrupted while other events are being taken down or set up. This assumption is based on effective marketing of the new convention center and the ability to boost convention center utilization during historically underutilized periods of the year, such as the summer months. The new convention

center will allow Buffalo to compete for new events on a higher per-square-foot scale.

C.3.3 Site-Specific Convention Center Alternative Assumptions Used in Calculating Economic Impacts

Mohawk Site

This EIS relied on past studies, research, and citizen observations in formulating assumptions related to expected patronage for the Mohawk site. The Mohawk site is the closest to the downtown's hotel, restaurant, retail, and entertainment options. Out-of-town delegates would have a short walk to the hotels, theater district, restaurants, the Main Street/Chippewa district, and other cultural amenities. Furthermore, delegates would not be isolated from the core entertainment hub as they would be in the Waterfront option, as explained below. Table C-3 shows the length of time, in minutes, for a pedestrian to walk from Lafayette Square north to the Chippewa entertainment and Theatre districts. Lafayette Square is at the southwest corner of the proposed Mohawk site.

Table C-3 Estimated Walking Times at Various Locations Approaching Buffalo's Entertainment/Retail Core from the Mohawk Site

Intersection	Time (min:sec)
Start – Lafayette Square/Main and Broadway	0:00
2 – Main & Chippewa (Radisson Hotel, beginning of Theatre District)	6:40
3 – Pearl & Chippewa (beginning of entertainment district)	7:05
4 – Franklin & Chippewa (core of entertainment district)	8:20
5 – Main & W. Tupper (end of Theatre District)	10:20
6 – Main & Church (Cathedral Park, heading South)	6:20

Table C-3 shows that a visitor could reach the blocks offering the most opportunities for recreational spending in a relatively short period of time. Therefore, in calculating the economic impacts associated with the Mohawk site, this EIS concluded that both future incremental attendance and spending would be greatest under this alternative. In forming assumptions related to the Mohawk alternative, this EIS also notes that the expansion of the Buffalo/Niagara Airport and the addition of more carriers providing service at more competitive fares has been a positive factor in serving to make Buffalo a more desirable location to host an event.

Waterfront Site

In formulating assumptions related to the expected patronage and spending per delegate associated with the Waterfront site, this EIS relied on past studies, citizen observations, and references to surveys of delegate spending habits of visitors who are somewhat removed from the central business district (CBD). The Waterfront site is removed from the CBD core that contains the highest concentration of restaurants, shops, theatres, and entertainment establishments.

Collateral hotel, entertainment, and retail infrastructure developments to support out-of-town delegates at the Waterfront site would have to occur simultaneously in order to maximize new visitor spending. Various comments have already been received and considered regarding the Waterfront site's relatively isolated location. To judge just how far removed the site is for pedestrian access to the Main Street area CBD, this EIS timed distances for a normal walk in the summer heading north to the city center. Table C-4 shows the length of time, in minutes, at various points approaching the CBD core.

Table C-4 Estimated Walking Times at Various Locations Approaching Buffalo's Entertainment/Retail Core from Waterfront Site

Intersection	Time (min:sec)
Start - Main and Perry (HSBC Arena):	0:00
2 – Main and Scott:	1:10
3 – Main and Seneca:	5:20
4 – Main and Swan:	7:00
5 – Main and Church (Cathedral Park):	8:40
6 – Main and Court (Lafayette Square):	12:05
7 – Main and Huron (Hyatt Hotel):	15:40
8 – Main and Chippewa (Radisson Hotel, beginning of Theatre District):	18:40
End – Main and West Tupper (end of Theatre District):	22:00

Source: Ecology and Environment calculations.

The field test started at the HSBC Arena (approximately where the Waterfront site is located and where the last metro stop is), and proceeded north on Main Street to West Tupper at the end of the Theatre District. Table C-4 presents the times at various intersections:

Table C-4 demonstrates that the Waterfront site is not conveniently located to downtown Buffalo's entertainment and retail core. From the Waterfront site a visitor would have to walk at least 11 to 13 blocks to reach the entertainment nucleus (20 minutes). Fur-

thermore, considering the weather and early winter of Buffalo could also be expected to make walking to the CBD core less convenient to the visitor. Surveys of delegates have demonstrated that a convention center that is remote from the CBD results in less spending per out-of-town delegate/attendee. In fact, any distance greater than three to five blocks can result in much lower spending per out-of-town delegate (Petersen 1996).

Based on the above information, an assumption was formed regarding out-of-town delegate spending that would be associated with the Waterfront site; Spending per Waterfront site out-of-town convention delegate would be less than the spending per day per delegate at the Mohawk site. Table C-1 shows that expected attendance is projected to be about three-fourths of the 2007 attendance at the Mohawk alternative.

It is also worth noting that siting a convention center at the Waterfront site would preclude any expansion plans at those parcels by HSBC.

Existing Convention Center Renovation/Expansion

The assumptions used to estimate the impacts associated with the renovation or expansion of the existing facility were derived from past studies, common sense, and professional judgement. Major disruptions in convention center activities would most likely take place with this option because activities would be lost until the expanded facility were operational. In addition, given the increasingly competitive nature of local venues competing for events, it was assumed that the construction-related business interruptions could have lasting impacts that would result in some recurring events being permanently lost to other venues. In formulating these assumptions, this EIS examined certain annual recurrent events between 1996 and 2000 and noted those events that were subsequently lost in 1999 and 2000. For reasons such as competition, dissatisfaction with the depreciated facility, or outright cancellation by sponsors due to the weak economy, these events were lost to the center. It was assumed that such losses in patronage would worsen with the expansion option. It is possible that certain events would be permanently lost to competing venues during the construction/renovation period. These events would be difficult to win back to the convention center after renovations were completed.

In the estimate of economic impacts associated with the expansion option, the projected out-of-town attendance compared to the other alternatives was discounted. The relative attendance for out-of-

town attendees across alternatives is shown in Table C-1. The spending per delegate was left the same as that used in the Mohawk site alternative because of the site's location near the CBD.

No-Action Alternative

The No-Action Alternative is expected to result in a continued loss of events, reduced attendance, and foregone visitor spending in the region. The combination of a reduction in market share, slower economy, a fully depreciated and outmoded existing facility, and more intense competition for events with other local and regional venues is expected to hinder the existing convention center's role as a catalyst for importing spending stimulus to the local economy. Table C-5 was summarized from the *2001 Convention and Trade Show Calendar* published by the Buffalo-Niagara CVB. The table shows the distribution of event attendance by venue for all major local venues in our region. The table highlights the increasingly competitive local market for various events and the gains made by the Adam's Mark Hotel in hosting national, state, and regional events.

The EIS estimates that if current trends were to continue that are not addressed by any meaningful capital improvements to the convention center, the expected 2007 number of out-of-town conventioneers would fall to 31,385 from a 2000 estimate of 41,667 attendees.

Modified No-Action Alternative

The Modified No-Action Alternative is based on assuming that projected attendance will stabilize (from the declining trend) following about $10 million dollars of modest capital improvements to the existing center. These capital improvements will be for the construction of approximately 300 parking spaces as well as cosmetic improvements and the replacement of obsolete environmental systems. The projected spending that generates economic impacts from these modest improvements is based on spending by out-of-town attendees. Out-of-town attendance for this alternative is displayed in Table C-1.

Table C-6 compares the economic impacts of the alternatives.

C.3.4 Summary of Economic Impacts

Table C-6 summarizes the economic impacts from the various convention center alternatives. Estimated economic impacts were measured by industry output, employment, and employee compensation. These impacts are recurrent and are associated with the operation of a new convention center or the continued operation of

Table C-5 Summary of Actual and Prospective Estimated Attendance for Various Events by Venue – 2001

Venue	Type of Event								
	International	Local	National	National/ International	Regional	State	Trade Show	Total	Percent of Total
Adam's Mark Buffalo		300	7,740	1,100	2,710	6,375		18,225	4.9%
Buffalo Convention Center		450	7,550			7,325	262,000	277,325	75.1%
Buffalo Niagara Marriott			100			450		550	0.1%
ECC/Burt P. Flickinger, Jr. Athletic Center			3,000		9,600	850		13,450	3.6%
Four Points Sheraton – Buffalo Airport		150						150	0.0%
Hamburg Fairgrounds								-	
Holiday Inn Downtown			200					200	0.1%
Holiday Inn Grand Island			50			150		200	0.1%
Hoyt Lake			500					500	0.1%
HSBC Arena				17,000				17,000	4.6%
Hyatt Regency Buffalo		500	550			300		1,350	0.4%
International Agri-Center/Hamburg Fairgrounds						5,000		5,000	1.4%
Lewiston Porter Soccer Fields/Youngstown Veterans			7,500					7,500	2.0%
Niagara Falls Country Club						200		200	0.1%
Quality Inn Buffalo Airport			80					80	0.0%
Radisson Hotel & Suites	400		1,220		750	1,225		3,595	1.0%
Ralph Wilson Stadium			15,000					15,000	4.1%
TBD (To Be Determined)			4,820					4,820	1.3%
Tonawanda Aquatic Center			1,000					1,000	0.3%
UB - World University Games Stadium						3,000		3,000	0.8%
University at Buffalo			300					300	0.1%
Total	**400**	**1,400**	**49,610**	**18,100**	**13,060**	**24,875**	**262,000**	**369,445**	**100.0%**
Percent of Total	**0.1%**	**0.4%**	**13.4%**	**4.9%**	**3.5%**	**6.7%**	**70.9%**	**100.0%**	

Table C-6 Summary of Economic Impacts of Convention Center Operations, Economic Impact Measured by Total Industry Output ($ millions)

	Year 2000 Baseline Impact	Projected Year 2007 Economic Impact					Projected Year 2010 Economic Impact				
		Mohawk Alternative	Expansion Alternative	Waterfront Alternative	Modified No-Action Alternative	No-Action Alternative	Mohawk Alternative	Expansion Alternative	Waterfront Alternative	Modified No-Action Alternative	No-Action Alternative
Erie County											
Direct	$29.9	$44	$29.0	$32.6	$28.3	$23.8	$56.0	$31.9	$36.3	$28.5	$20.7
Indirect	$7.3	$10.4	$6.9	$7.7	$6.7	$5.6	$13.2	$7.5	$8.6	$6.7	$4.9
Induced	$7.8	$11.3	$7.5	$8.4	$7.3	$6.1	$14.4	$8.2	$9.3	$7.3	$5.3
Total	$45.0	$65.7	$43.4	$48.7	$42.3	$35.5	$83.6	$47.6	$54.2	$42.5	$30.9
New York State											
Direct	$29.9	$44.0	$29.0	$32.6	$28.3	$23.8	$56.0	$31.9	$36.3	$28.5	$20.7
Indirect	$7.6	$10.9	$7.2	$8.1	$7.0	$5.9	$13.9	$7.9	$9.0	$7.1	$5.1
Induced	$8.5	$12.4	$8.2	$9.2	$8.0	$6.7	$15.8	$9.0	$10.2	$8.0	$5.9
Total	$46.0	$67.3	$44.4	$49.9	$43.3	$36.4	$85.7	$48.8	$55.5	$43.6	$31.7

the existing facility. The total impacts include the estimated impacts of expenditures by out-of-town delegates, associations and exhibitors, convention center employees, and convention center operational spending. Consumer shows and exclusively local events were excluded from both the baseline and projected annual impacts.

The baseline estimate represents the current dollar impact of the center as measured by year 2000 relevant attendance. As mentioned above, the year 2000 was chosen for the baseline because 2001 was influenced by extraordinary events and can be considered, for the purposes of economic projections, an aberrational year.

The EIS also estimates impacts (from spending by out of town attendees) that are expected once construction is completed and a stabilized year of demand is reached. The year 2007 was chosen as the first year of stabilized demand. Since the 2007 impacts and the baseline impacts were both expressed in current dollars, they can be compared and contrasted so that readers can distinguish the expected increase in impacts of the new center, once it is completed.

Note that measures of gross annual economic impacts do not adjust for economic activity both at the existing alternative sites and activity that would be permanently precluded at the proposed convention center sites. This adjustment was performed below for the Mohawk site option. The analysis was performed for the Mohawk site because this alternative contains the greatest concentration of existing and future alternative economic activity due to its location in the CBD.

Economic Impacts – Industry Output

Table C-6 contrasts the economic impacts from the alternative sites. Economic impact is measured by total industry output that is equivalent to total business sales plus what businesses place into inventory. The largest economic impact on the Erie County and New York State economies comes from expenditures made by non-local delegates attending events at the center. The impact estimates assume that baseline out-of-town delegates attending national conventions spend, on average, 3.4 days in the city and spend $229 per day on hotels, restaurants, and recreation during their stay.

Table C-6 shows that the Mohawk alternative, by year 2007, can be expected to generate a total of $65.7 million in economic activity

to Erie County. By the year 2010, the impacts would grow to $83.6 million.

The difference in projected impacts between the various alternatives relates back to the assumptions used. It was assumed that once the expanded existing facility was reopened, the construction-induced competitive losses would have eroded market share to such an extent that attendance would be down significantly. It is important to note that the construction of the Mohawk facility does not result in any downtime for the existing facility. In the competitive environment, it is realistic to assume that downtime can have a lasting negative impact.

The $65.7 million in economic impact due to the Mohawk alternative center operations for 2007 is a gross figure and does not account for the alternative economic activity that would be precluded at this site due to siting the convention center there. As a measure of economic activity that would be precluded by the Mohawk site, this EIS estimated the foregone recurring household spending for 70 residential units below under the Opportunity Cost analysis. The foregone economic output from households at the site amounts to $5.2 million in Erie County. This calculation is further explained in notes below.

Impacts are generally larger statewide than for the county as a whole. The supply chain for Erie County is linked to other business and enterprises across the state, resulting in greater inter-industry transactions and total economic impacts. Indirect impacts are the result of successive rounds of inter-industry spending reflected in our regional supply chain. To the extent that Buffalo takes away attendees who would otherwise patronize facilities in Syracuse and Rochester, spending by out-of-town delegates in those cities would be lower. However, to fully assess the net impact on the state, from total spending at all convention centers, the total direct spending from multi-city out-of-town convention center attendees would have to be aggregated and compared on a statewide basis.

Employment Impacts

Table C-7 reports the total direct, indirect, and cumulative employment gains associated with each alternative.

Table C-7 shows the total employment gains that can be expected under the alternatives. In addition to the approximately 74 employees now working at the center, the baseline column shows that several hundred additional persons currently work in related

Table C-7 Summary of Economic Impacts of Convention Center Operations, Total Employment Impacts of Each Alternative

		Projected Year 2007 Employment Impact					Projected Year 2010 Employment Impact				
	Year 2000 Baseline Impact	Mohawk Alternative	Expansion Alternative	Waterfront Alternative	Modified No-Action Alternative	No-Action Alternative	Mohawk Alternative	Expansion Alternative	Waterfront Alternative	Modified No-Action Alternative	No-Action Alternative
Erie County											
Direct	437	633	418	469	408	342	805	458	522	409	298
Indirect	64	93	61	69	60	50	118	67	77	60	44
Induced	82	119	79	88	77	64	151	86	98	77	56
Total	**583**	**845**	**558**	**626**	**545**	**456**	**1,074**	**611**	**697**	**546**	**398**
New York State											
Direct	438	634	419	470	408	343	807	460	523	410	299
Indirect	65	94	62	70	61	51	120	68	78	61	44
Induced	88	129	85	96	83	70	164	93	106	83	61
Total	**591**	**857**	**566**	**636**	**552**	**464**	**1,091**	**621**	**707**	**554**	**404**

Note: Impacts are derived from out of town delegate spending, exhibitors, associations, convention center employees, and convention center operations.

complementary activities, such as restaurants, retail shops, hotels, and support establishments.

It is important to note that the impacts flow from total direct spending by a delegate, association, or exhibitor impacting industries represented in the IACVB per-day-visitor spending data. For example, the majority of the baseline direct employment in Erie County implied by the spending is comprised of the following main SIC categories;

- Hotels and Lodging Places,
- Eating and Drinking Establishments,
- General Merchandise Stores,
- Amusement and Recreation Services, and
- Passenger Transportation, Auto Rental, Service Stations.

The projected employment impacts relate to a higher level of spending from the first year of stabilized demand, 2007, when the new center is expected to be fully operational. Table C-7 shows that for 2007 approximately 456 to 845 full- and part-time jobs will be supported countywide by economic activity generated by the new convention center, depending on the option selected. It is important to note that these anticipated jobs include gains in employment at associated suppliers and their suppliers as well as induced employment impacts of new spending by households. By the year 2010, total projected employment will be between 398 and 1,074 jobs.

Statewide, the expected employment gains from convention center operations for a new convention center will range from between 464 and 857 jobs for 2007. Indirect employment includes those individuals who would be employed by suppliers to the convention center, hotels, restaurants, parking facilities, bars, clubs, theatres, recreational areas, and other suppliers. Induced jobs are those that would be supported by increased spending by households as a result of the operation of a new convention center. By the year 2010, total projected employment will be between 404 and 1,091 jobs statewide.

Employee Compensation

Table C-8 shows the estimated employee earnings that are expected under the alternatives. Employee compensation represents

Table C-8 Employee Compensation ($ millions)

	Year 2000 Baseline Impact	Projected Year 2007 Impacts					Projected Year 2010 Impacts				
		Mohawk Alternative	Expansion Alternative	Waterfront Alternative	Modified No-Action Alternative	No-Action Alternative	Mohawk Alternative	Expansion Alternative	Waterfront Alternative	Modified No-Action Alternative	No-Action Alternative
Erie County											
Direct	$10.3	$14.9	$9.8	$11.0	$9.6	$8.1	$19.0	$10.8	$12.3	$9.7	$7.0
Indirect	$2.5	$3.6	$2.4	$2.7	$2.3	$1.9	$4.6	$2.6	$3.0	$2.3	$1.7
Induced	$2.7	$3.9	$2.6	$2.9	$2.5	$2.1	$5.0	$2.8	$3.2	$2.5	$1.9
Total	**$15.5**	**$22.4**	**$14.8**	**$16.6**	**$14.4**	**$12.1**	**$28.6**	**$16.2**	**$18.5**	**$14.5**	**$10.6**
New York State											
Direct	$10.3	$14.9	$9.8	$11.0	$9.6	$8.1	$19.0	$10.8	$12.3	$9.7	$7.0
Indirect	$2.6	$3.8	$2.5	$2.8	$2.4	$2.1	$4.8	$2.7	$3.1	$2.4	$1.8
Induced	$2.9	$4.2	$2.8	$3.1	$2.7	$2.3	$5.3	$3.0	$3.4	$2.7	$2.0
Total	**$15.9**	**$22.9**	**$15.1**	**$16.9**	**$14.7**	**$12.5**	**$29.1**	**$16.5**	**$18.8**	**$14.8**	**$10.8**

Note: Impacts are derived from out of town delegate spending, exhibitors, associations, convention center employees, and convention center operations.

total payroll costs including wages and salaries plus benefits, such as health insurance. For the year 2007, the alternatives would generate between $14.74 and $22.9 million statewide in employee earnings depending on the alternative chosen.

Overall Summary of Economic Impacts

The total economic impacts on Erie County generated by convention center operations at each alternative ranges from $35.5 to $65.7 million in total economic output by the year 2007. In addition, between 456 and 845 full- and part-time jobs, generating between $14.4 and $22.4 million in annual employee earnings, would be generated countywide. To compare the economic and fiscal benefits to the taxpayer's dollar or the return on public investment, see Section C.9, Net Economic Impact Summary and Analysis Related to the Justification of the Public Investment.

C.5 Fiscal Impacts

This EIS also relied on the IMPLAN model to estimate the total tax revenues statewide associated with convention center operations for the various alternatives. In discussing the fiscal impacts, the entire EIS should be relied on as an aid to policymakers who also need to consider additional public expenditure demands related to future infrastructure and utility costs associated with the proposed convention center. This section focuses on tax revenues. Table C-9 presents a comparison of total tax revenues generated for the largest revenue categories: personal income tax, property tax, and sales tax. The IMPLAN model generates tax revenue estimates for both federal and combined state and local revenues. Table C-9 only reports the tax revenues generated by each spending catalyst for combined state and local revenues.

Table C-9 shows that depending on the alternative selected, total state and local tax revenues derived from convention center operations could range between $2.7 million and $4.9 million annually by 2007. The IMPLAN model calculates total combined state and local tax revenues. Accounting for existing tax revenues derived from the alternative sites would reduce the range provided above by between $57,068 (Waterfront) and $387,665 (Mohawk). Therefore, the net tax revenues from convention center operations would be between $2.6 million and $4.5 million annually, depending on the alternative chosen.

Table C-10 provides an update of the incremental hotel tax. By incremental, we mean only the additional revenue collected due to the direct spending on hotel accommodations by out-of-town

Table C-9 Annual Recurring Fiscal Impacts (Tax Revenues) from Convention Center Operations

Largest Tax Items	Year 2000 Baseline Impact	Year 2007 Projection					Year 2010 Projection				
		Mohawk Alternative	Waterfront Alternative	Expansion Alternative	Modified No-Action Alternative	No-Action Alternative	Mohawk Alternative	Waterfront Alternative	Expansion Alternative	Modified No-Action Alternative	No-Action Alternative
Erie County											
1) Income Tax	$646,799	$940,779	$697,052	$621,041	$606,011	$508,873	$1,196,812	$776,093	$681,502	$608,572	$443,142
2) Property Tax	$1,186,520	$1,725,549	$1,278,512	$1,139,095	$1,111,527	$933,361	$2,195,158	$1,423,490	$1,249,992	$1,116,226	$812,797
3) Sales Tax	$1,031,563	$1,500,198	$1,111,542	$990,333	$966,365	$811,466	$1,908,478	$1,237,587	$1,086,748	$970,451	$706,649
Subtotal(1+2+3)	$2,864,882	$4,166,526	$3,087,106	$2,750,469	$2,683,903	$2,253,700	$5,300,448	$3,437,170	$3,018,242	$2,695,249	$1,962,588
Other Taxes*:	$521,140	$762,269	$564,788	$503,200	$491,022	$412,316	$969,721	$628,833	$552,189	$493,098	$359,057
Total:	**$3,386,022**	**$4,928,795**	**$3,651,894**	**$3,253,669**	**$3,174,925**	**$2,666,016**	**$6,270,169**	**$4,066,003**	**$3,570,431**	**$3,188,347**	**$2,321,645**

Note: Other taxes represent collections from motor vehicle fees, severance tax, estate and gift tax, fines, hunting/fishing licenses, etc.

Table C-10 Calculation of Incremental Hotel Tax Revenues Generated from Direct Spending for various Site Alternatives

		Projected Year 2007				
	Year 2000	Mohawk Alternative	Waterfront Alternative	Expansion Alternative	Modified No-Action Alternative	No-Action Alternative
Estimated Direct Spending on Hotel Accommodations [a]						
Delegates	$10,505,496	$17,390,532	$12,885,172	$11,480,095	$11,202,256	$9,406,646
Exhibitors	$423,613	$761,452	$564,183	$502,661	$490,496	$411,874
Total	$10,929,109	$18,151,984	$13,449,355	$11,982,756	$11,692,752	$9,818,520
Hotel Tax Revenue @						
5%	$546,455	$907,599	$672,468	$599,138	$584,638	$490,926
6%	$655,747	$1,089,119	$806,961	$718,965	$701,565	$589,111
Net Difference:	$109,292	$181,520	$134,493	$119,827	$116,927	$98,185

[a] Hotel spending portion was estimated using IACVB data. With succeeding rounds of spending, collections from hotel taxes would rise. For example, induced impacts would result in higher incomes and hotel stays/spending etc.

attendees. The calculation was based on the hotel portion of total direct spending for both out-of-town delegates and visitors. The share of hotel-related spending out of total delegate and exhibitor spending was taken from the IACVB data.

Assuming that 100% of the hotel stays are within Erie County, Table C-10 indicates that at a 5% tax rate, the projected incremental hotel tax revenue for 2007 ranges between $490,900 and $907,599 with the Mohawk site generating the highest amount. Boosting the hotel tax rate to 6% would yield an incremental $98,185 to $181,520 per annum, depending on the alternative chosen.

It should be noted that the hotel tax revenue estimates provided are based solely on direct expenditures. They do not include additional hotel-tax-related revenues that would arise from initial rounds of consumption expenditures induced by the direct expenditures. These revenues would be related to indirect and induced impacts.

In response to comments, the EIS also examined the relationship between Erie County hotel tax revenues and the projected BCC operating deficit assuming the preferred (Mohawk) alternative. The analysis examined actual hotel tax receipts derived from the hotel occupancy tax and bed tax receipts expressed on a calendar year basis. These receipts were compared to estimates of annual hotel revenues for Erie County published by Smith Travel Research. Hotel taxes were about 3.9 to 4.0% of total hotel revenues. Hotel tax revenues are used to fund the CVB budget and debt service on the existing convention center and the Crossroads Reserve. Historically, the BCC operating deficit (before factoring in county grant funds) has averaged between 17 and 22% of countywide hotel tax revenues.

The EIS compared projected hotel tax revenues through 2010 to the projected operating deficit under the Mohawk alternative. The hotel tax revenue projections also factored in an increase in hotel tax rates occurring in 2007. The results of the analysis are displayed in Table C-11.

Table C-11 Comparison of Projected Operating Deficit for New Buffalo Convention Center (Mohawk Alternative) to Projected Hotel Bed Tax Receipts for Erie County

Calendar Year	Erie County Hotel Tax Receipts	Tax Receipts Annual Growth (%)	BCC Operating Deficit	Tax Receipts/ Deficit (%)
1996	$4,255,013		$(927,317)	-21.8%
1997	$4,403,799	3.5%	$(748,894)	-17.0%

Table C-11 Comparison of Projected Operating Deficit for New Buffalo Convention Center (Mohawk Alternative) to Projected Hotel Bed Tax Receipts for Erie County

Calendar Year	Erie County Hotel Tax Receipts	Tax Receipts Annual Growth (%)	BCC Operating Deficit	Tax Receipts/ Deficit (%)
1998	$4,427,606	0.5%	$(819,537)	-18.5%
1999	$4,714,134	6.5%	$(883,198)	-18.7%
2000	$5,057,489	7.3%	$(1,069,326)	-21.1%
2001	$4,754,040	-6.0%	$(990,837)	-20.8%
2002	$4,658,959	-2.0%	$(1,031,017)	-22.1%
2003	$4,728,844	1.5%	$(1,085,735)	-23%
2004	$4,842,336	2.4%	$(1,159,735)	-23.9
2005	$4,987,606	3.0%	$(1,251,383)	-25.1%
2006	$5,137,234	3.0%	$(2,501,082)	-48.7%
2007	$5,650,957	10.0%	$(2,730,781)	-48.3%
2008	$5,820,486	3.0%	$(3,074,416)	-52.8%
2009	$5,995,101	3.0%	$(3,534,686)	-59%
2010	$6,174,954	3.0%	$(4,117,443)	-66.7%

The above table was based on using conservative assumptions concerning growth in hotel tax revenue receipts. The table also assumes that a new tax rate will be implemented in the year 2007.

C.6 Opportunity Cost of Alternative Economic Development at the Mohawk Site

To address possible alternative uses for the Mohawk site other than a convention center, this EIS examined downtown plans for development from the R/UDAT report. Assumptions were developed based on R/UDAT recommendations that are consistent with comments from citizens on the types of development that would be compatible and desired at the Mohawk site if the convention center project is not pursued.

This EIS examined the number of acres by land use and likely future uses for the parcels at the Mohawk site without a convention center. A hypothetical scenario, based on the construction of new residential units and the renovation of older historic units, was developed based on housing construction cost per unit information from R/UDAT and what is allowable under current zoning regulations. Given the mix of land uses at the Mohawk site, it was determined that approximately three acres would be available and consistent with both new residential construction of 14 units and the renovation and rehabilitation of 56 units for a total of 70 units of residential housing. This number of units is consistent with the

numbers proposed in the R/UDAT report for the Mohawk site. (R/UDAT 2000 p. 23). Short-term economic impacts associated with the construction spending and renovation of these 70 units of residential housing were then calculated. The results of this analysis are presented below in Table C-12.

Table C-12 Summary of Economic Impacts Derived from Constructing and Renovating a Total of 70-Residential Units at the Mohawk Site (in millions of current dollars, except employment)

	Direct	Indirect	Induced	Total
Erie County				
Economic Output	$ 10.6	$ 3.9	$ 2.8	$ 17.2
Employee Compensation	$ 3.0	$ 1.5	$ 1.0	$ 5.5
Employment	80	37	29	146
New York State				
Economic Output	$ 10.6	$ 4.2	$ 3.1	$ 17.9
Employee Compensation	$ 3.0	$ 1.6	$ 1.1	$ 5.7
Employment	80	39	33	151

The short-term non-recurring economic impacts displayed in Table C-12 can be netted against the total economic impacts of the construction of the convention center at the Mohawk site. For example, the adjusted total for construction-related impacts for the Mohawk site is presented below. The table reports the gross economic impacts of construction of the convention center for Erie County minus the impacts of the residential housing alternative displayed in Table C-12.

Table C-13 shows that the residential housing option only represents approximately 8 to 9% of the total short-term economic impacts that could be derived from constructing a new convention center.

Table C-13 Summary of Adjusted or Net Economic Impacts Derived from Constructing the New Buffalo Convention Center at the Mohawk Site (in millions of current dollars)

Erie County	Direct	Indirect	Induced	Total
Original Impacts (gross)				
Economic Output	$ 127.5	$ 46.5	$ 34.8	$ 208.8
Employee Compensation	$ 34.8	$ 16.6	$ 11.2	$ 62.6
Employment	976	440	368	1,784
Adjusted Impacts (less impacts from residential building construction)				
Economic Output	$ 116.9	$ 42.6	$ 32.0	$ 191.5
Employee Compensation	$ 31.8	$ 15.1	$ 10.2	$ 57.1
Employment	896	403	339	1,638

Table C-13 Summary of Adjusted or Net Economic Impacts Derived from Constructing the New Buffalo Convention Center at the Mohawk Site (in millions of current dollars)

Erie County	Direct	Indirect	Induced	Total
Percent Difference				
Economic Output	-8.3%	-8.4%	-8.0%	-8.3%
Employee Compensation	-8.6%	-9.1%	-8.6%	-8.7%
Employment	-8.2%	-8.3%	-8.0%	-8.2%

Some citizen comments have related to promoting developments and projects that would encourage permanent level or year-round economic activity associated with residents moving to downtown Buffalo. It has been argued that the convention center project would preclude this sort of migration and revitalization of the downtown area.

However, the economic impact analysis is conducted with the design of isolating incremental new economic impacts coming into the county. The project economic impact area is defined as the county, not a few downtown blocks or parcels. The movement of people, most likely from other areas of Erie County to the Mohawk site area, for instance, represents a transfer of income and not a unique form of economic stimulus that non-local convention center delegates would bring to the area.

Having stated this, this EIS nevertheless calculated the ongoing economic impacts associated with spending by households who would occupy these residential units for the sake of comparison and to address public comments. These spending impacts by households residing at the Mohawk site should be compared to the ongoing spending impacts of a new convention center. It should be stressed, however, that these impacts are non-incremental and would most likely occur within Erie County even without the construction or renovation of the residential units. This EIS assumed that at 100% occupancy approximately 160 people would occupy the housing units, assuming 2.29 people per household. An estimate for per capita income in Buffalo in 2000 of approximately $27,511 dollars was used to calculate total household income. Disposable income was assumed to be equal to 80% of this total amount. Economic impacts were estimated from approximately $3.5 million in annual spending associated with these households. Table C-14 shows that assuming 100% occupancy, household spending of the Mohawk site residents would generate a total of $5.2 million in total economic impact and a total of 40 jobs annually across Erie County. As noted, however, these economic impacts can not be classified as net new or incremental impacts on the

county. It should be noted that even if the convention center were built on the Mohawk site, the impacts displayed in Table C-14 would likely not be lost to the county. The residents who would generate these economic impacts would most likely still reside in Erie County and/or elsewhere in downtown Buffalo. The impacts displayed in Table C-14 could only be classified as net new or incremental economic impacts on the region if each and every household occupying one of the 70 units moved to the site from outside the Buffalo/Erie MSA. Assuming that the foregone household spending was by residents new to the downtown area from outside of Erie County, the net economic impacts of convention center operations spending would be $60.5 million in total economic output (i.e., $65.7 million minus $ 5.2 million; compare Table C-6 to Table C-14).

Table C-14 Summary of Economic Impacts Derived from Estimate of Household Spending at Mohawk Site (Assuming Construction of 70 Residential Units)

Erie County	Direct	Indirect	Induced	Total
Economic Output	$ 3.9	$ 0.6	$ 0.7	$ 5.2
Employee Compensation	$ 0.8	$ 0.2	$ 0.2	$ 1.3
Employment	27	5	7	40

C.7 Convention Center Construction and Headquarters-Quality Hotel — Economic Impacts

This section provides (1) updated projections of the development costs for the construction of the various convention center alternatives and headquarters-quality hotel, (2) a summary of the short-term non-recurring economic impacts of the construction of the convention center alternatives and the hotel, (3) an analysis of hotel financing under different assumptions concerning market conditions.

The estimates of hotel development costs and economic impacts are not site-specific. Therefore, only one estimate of these costs and the economic impacts is provided for a newly constructed hotel. The three alternatives that are described are the Mohawk site, the renovation/expansion of the existing facility, and the Waterfront site. This section provides background detail on the economic impact estimates and collates and compares past work on construction costs and economic impacts for this phase.

Direct Construction Costs

Development costs including project physical contingencies for the three possible convention center alternatives are estimated to range between $142 and $168 million. The renovation/expansion alternative is the most expensive, while the Waterfront alternative is the least expensive. There is a small difference in total costs between the renovation/expansion and Mohawk alternatives. The amenity costs include structured parking space options for all of the alternatives. For the Mohawk alternative, amenities also include public square/streetscape costs, a link to the Hyatt Hotel, and Mohawk ramp replacement parking (650 spaces), as well as additional structured parking for 650 spaces. The updated convention center capital costs for the Mohawk alternative were provided by Cannon Design Associates.

It should be noted that the construction cost estimates are planning-level estimates designed to present order-of-magnitude costs and to highlight relative differences between alternatives.

The updated estimated cost of constructing a 400-room headquarters-quality hotel is $67 million. The development costs for this hotel were based on information provided in the Economics Research Associate (ERA) study "Analysis of the Factors Affecting the Development of a Convention Center Hotel in Buffalo, New York" (Economics Research Associate 1998). The original costs provided by ERA were based on a cost per room average from a sample of convention center complementary hotels. The costs per room were updated using a cost escalation factor obtained from the Engineering News Record publication. (Details on these estimates are provided at the end of this document.) The headquarters-quality hotel cost estimate is not site specific. Therefore, in assessing total project related costs, the same hotel cost estimate was added to each convention center construction cost estimate. Table C-15 shows the detailed project cost estimates for each alternative.

It should be noted that total project costs include the total development cost of the hotel, of which about slightly more than one-half ($36.1 / $66.8 million = 54%) will be born by the private developer. To provide a more realistic cost estimate for the state and county, the combined project cost estimate should net out private equity contributions for the development of both the center and hotel. Subtracting private development costs for the hotel, the total cost of the project varies between $173.1 and $198.9 million. Note that the adjusted total project cost estimate does not reflect private equity investment in the convention center alternatives.

Economic Impact Estimates from Construction Phase

In calculating the economic impacts, land acquisition costs and project contingencies were excluded. These costs are traditionally excluded because they do not represent hard or tangible expenditures for which initial final demand direct expenditures can be linked and estimated. The highlighted portion of Table C-15 shows the cost elements or direct expenditures that were used to estimate the economic impacts. The IMPLAN economic input-output modeling program was used to calculate the economic impacts. It should be noted that both the Johnson Study and the KPMG study used IMPLAN as well. By using IMPLAN, a widely used software package, this EIS has provided consistency and continuity with other studies' economic impact estimates.

Table C-15 Comparison of Construction and Total Project Costs for Each Convention Center Alternative ($ millions)

	Cost Category	Mohawk Site	Waterfront Site	Expansion Alternative
I	**Site Costs**			
	Land Acquisition	$12.0	$2.37	$10.00
	Relocation Cost	$2.1	$-	$-
	Hazardous Material Removal Allowance & Building Demolition	$5.4	$1.5	$4.0
	Utility Relocation & Site Clearing			
	Subtotal Site Costs	**$19.5**	**$3.9**	**$14.0**
II	**Construction Costs**			
	Building Construction Costs[1]	$88.1	$88.1	$101.2
	Amenities[3]	$25.9	$19.5	$19.8
	Subtotal Construction Costs	**$114.0**	**$107.6**	**$121.0**
III	**Soft Costs**			
	Furnishings, Fixtures and Equipment (FFE)	$8.1	$8.1	$8.1
	Testing & Inspection	$0.6	$0.6	$0.6
	Design, Engineering, Legal & Accounting Fees[2]	$9.2	$9.2	$9.2
	Subtotal Soft Costs:	**$17.9**	**$17.9**	**$17.9**
IV	**Project Contingency**	**$15.1**	**$13.0**	**$15.3**
	% of total costs	9.1%	9.1%	9.1%
	Subtotal Convention Center Project Costs	**$166.5**	**$142.4**	**$168.2**
Hotel Development Costs				
	Category			
	Land	$5.4	$5.4	$5.4
	Hard Costs	$46.8	$46.8	$46.8

Table C-15 Comparison of Construction and Total Project Costs for Each Convention Center Alternative ($ millions)

	Cost Category	Mohawk Site	Waterfront Site	Expansion Alternative
	FF & E	$8.2	$8.2	$8.2
	Construction Financing	$3.7	$3.7	$3.7
	Pre-Opening and Financing	$0.9	$0.9	$0.9
	Legal, Accounting, Other	$1.7	$1.7	$1.7
	Subtotal, Hotel Development Costs	**$66.8**	**$66.8**	**$66.8**
Total Project Cost Estimates		**$233.3**	**$209.2**	**$235.0**

Sources: Cannon Design, Stievater Associates, Ecology and Environment, Inc.

Notes:
[1] Costs were escalated using the ENR construction costs index for the Buffalo area or the nearest area. After this period a 3% costs escalation factor was used.
[2] Design, Engineering etc. fees were allocated to the individual categories based on the KPMG report.
[3] Amenities includes parking spaces and in the case of the Mohawk alternative, ramp replacement parking, link to Hyatt, and public square/streetscape costs.

Economic impacts are measured by employment, industry output, and employee compensation. It should be noted that the economic impacts of the construction of both the convention center and hotel are non-recurring and will only provide economic stimulus during the construction period. After this period, the recurring economic stimulus will come from the operation of the convention center.

The economic impacts are measured by direct, indirect, and induced economic effects. The direct effects represent the impacts (e.g., changes in employment, income, and output) for the expenditures and/or production values specified as direct final demand changes. These expenditures that were entered into the model as inputs all flow from the construction cost estimates and are grouped by industries that would be directly impacted from the contracts. The value of the construction, amenity packages, demolition costs, and soft costs (e.g., engineering design fees) were specified as final demand changes for inputs to the model. IMPLAN calculates direct labor requirements based on historic output and earnings productivity ratios for the region for each category of construction and construction-related spending.

The indirect effects represent the impacts (e.g., change in employment) caused by the iteration of industries purchasing from industries resulting from direct final demand changes. A direct purchase will result in an industry supplier re-spending those portions of expenditures that it receives from the initial purchase and the suppliers to those suppliers re-spending in a similar fashion. An eco-

nomic model is needed to properly capture and simulate the inter-industry relationships within the region.

Induced effects represent the impacts on all local industries caused by the expenditures of new household income generated by the direct and indirect effects of final demand changes. The total impacts are the sum of the direct, indirect, and induced effects on economic activity.

Construction Employment

The revised estimates assume that the design and construction of the new convention center will take 2.5 years and employ a total 1,784 people in Erie County and provide 1,854 jobs statewide over that period. The total figure represents total labor requirements for the project itself (field labor), as well as jobs generated indirectly and by impacted households spending their incomes over the multi-year period. For a given year, the number of jobs generated is expected to be roughly proportional to the construction spending disbursement schedule in Table C-16.

Table C-16 Construction Spending Disbursement Schedule

Year	Percent of Construction Spending
2003	6.0
2004	49.0
2005	43.7
2006	1.3
Total	**100.0**

Table C-17 shows the summary of employment impacts for both Erie County and New York State.

Table C-17 Construction-Related Employment Estimates from Construction Phase of the New Convention Center

	Mohawk Site	Waterfront Site	Expansion Alternative
Erie County			
Direct	976	902	1014
Indirect	440	406	457
Induced	368	341	382
County Total	1784	1648	1854
New York State			
Direct	976	902	1014

Table C-17 Construction-Related Employment Estimates from Construction Phase of the New Convention Center

	Mohawk Site	Waterfront Site	Expansion Alternative
Indirect	460	425	479
Induced	408	377	424
State Total	1844	1704	1916

Includes employment from construction of centers and amenities, demolition, Furnishing, Fixtures and Equipment (FFE), testing, inspection and design, engineering, legal and accounting services. Amenities relates primarily to parking.

Construction Economic Impact

The construction economic impact is measured by total industry output that can be attributed to the construction of the new convention center. Industry output is the value of total industry production for the industries that are affected by construction activities. Table C-18 shows the total estimated economic impact for the various proposed alternatives.

Table C-18 Construction Economic Impact Estimates (millions of 2001 dollars)

	Mohawk Site	Waterfront Site	Expansion Alternative
Erie County			
Direct	$ 127.5	$ 117.6	$ 132.5
Indirect	$ 46.5	$ 42.9	$ 48.3
Induced	$ 34.8	$ 32.2	$ 36.2
County Total	$ 208.8	$ 192.7	$ 217.0
New York State			
Direct	$ 127.5	$ 117.6	$ 132.5
Indirect	$ 49.9	$ 46.0	$ 51.9
Induced	$ 39.2	$ 36.2	$ 40.7
State Total	$ 216.6	$ 199.8	$ 225.1

* Economic impact is measured by total industry output. Industry output is the cumulative value of the industries' total production.

Most of the expected economic stimulus will be directly related to the construction activities and spending that will be concentrated in the downtown area and Erie County over the course of the 2.5-year buildout period.

Table C-18 shows that the construction of the new convention center will have an economic impact between $193 and $217 million countywide and between a $200 million and $225 million economic impact statewide, depending on the alternative chosen.

Employee Compensation Impact

Employee compensation describes the total payroll costs (including benefits) of each industry in the region. It includes the wages and salaries of workers who are paid by employers as well as benefits, such as health and life insurance, retirement payments, and non-cash compensation. In the IMPLAN model, employee compensation is derived for each industry from government sources. The construction of the new convention center is expected to generate between $58 and $65 million in wages countywide and between $65 and $73 million in employee compensation statewide. Table C-19 shows the estimates of construction activity related wages for each alternative.

It is important to note that the economic boost or stimulus to the county and state from these wages will be a one-time or non-recurring benefit.

Table C-19 Construction Economic Impacts: Employee Compensation (millions of 2001 dollars)

	Mohawk Site	Waterfront Site	Expansion Alternative
Erie County			
Direct	$ 34.8	$ 32.2	$ 36.2
Indirect	$ 16.6	$ 15.3	$ 17.2
Induced	$ 11.2	$ 10.3	$ 11.6
County Total	$ 62.6	$ 57.8	$ 65.0
New York State			
Direct	$ 37.7	$ 34.9	$ 39.2
Indirect	$ 19.1	$ 17.6	$ 19.8
Induced	$ 13.3	$ 12.3	$ 13.8
State Total	$ 70.1	$ 64.8	$ 72.8

C.7.1 Fiscal Impacts from Convention Center Construction

Table C-20 compares the fiscal impact or tax revenues generated for the convention center alternatives. These tax revenues represent one-time or non-recurring revenues to the state and local governments flowing from the construction spending-related stimulus over the entire construction period. The tax revenues displayed were calculated with the IMPLAN model. For a given year of the construction period, the tax revenues should be prorated according to the percentage of construction spending disbursement in that year. For example, in 2005, 43.7% of the total anticipated tax revenue estimates displayed in Table C-20 would be the impact on the state and local governments in that year.

Table C-20 Non-Recurring Fiscal Impacts of Construction Alternatives (in 2001 dollars)

	Mohawk Site	Waterfront Site	Expansion Alternative
Erie County			
Employee Compensation	127,346	117,712	132,325
Household Expenditures	3,313,655	3,067,318	3,441,138
Enterprises (Corporation)	441,748	408,102	459,050
Indirect Business Taxes	4,855,500	4,475,607	5,047,808
Total	**8,738,249**	**8,068,736**	**9,080,320**
New York State			
Employee Compensation	129,648	119,879	134,706
Household Expenditures	3,717,982	3,440,244	3,861,656
Enterprises (Corporation)	489,070	451,678	508,269
Indirect Business Taxes	5,173,404	4,768,541	5,378,418
Total	**9,510,105**	**8,780,342**	**9,883,049**
Largest Tax Items:			
Erie County			
Personal tax: Income	2,676,647	2,477,706	2,779,601
Indirect business tax: Property Tax	2,437,474	2,246,767	2,534,013
Indirect business tax: Sales Tax	2,119,148	1,953,347	2,203,080
Subtotal	7,233,269	6,677,819	7,516,695
New York State			
Personal tax: Income	2,987,504	2,764,360	3,102,933
Indirect business tax: Property Tax	2,597,063	2,393,821	2,699,981
Indirect business tax: Sales Tax	2,257,896	2,081,196	2,347,372
Subtotal	7,842,462	7,239,377	8,150,286

Note:

Taxes from employee compensation are social insurance. taxes – employee and employer contributions.
Taxes from household expenditures are all personal taxes: income tax, motor vehicle license, fines/fees, fish/hunt, & property taxes.
Taxes from enterprises represent corporate profits tax, and dividends.
Indirect business taxes represent motor vehicle license, other taxes, property taxes, S/L non-taxes and sales tax.

C.8 Headquarters-Quality Hotel Construction Impact

This EIS also evaluated the construction-related economic impacts flowing from the development costs of a 400-room headquarters-quality hotel to be situated in proximity to the new convention center. The IMPLAN software was also used to estimate the economic impacts. Direct spending impacts from hard costs, furnishings, fixtures, and equipment and soft costs related to professional services (e.g., legal, accounting, and engineering) were evaluated

and modeled. Currently, the total cost to develop a 400-room hotel is approximately $66.8 million. The total cost estimate includes financing charges and land acquisition. The total development cost, consisting of hard construction costs, soft costs, and FFE amounts to $56.7 million. The amount of $56.7 million in construction-related expenditures was used to estimate the economic impacts.

The hotel development costs were originally provided by Economics Research Associates (ERA) and were updated with the current dollar value. The total hotel development costs are not site-specific and are presented above in Table C-15. It should be noted that because a given site has not been identified, the costs presented in Table C-15 are order-of-magnitude costs and could vary with site-specific factors such as demolition and relocation costs. The hotel development costs are meant to provide a ballpark figure for the current costs of constructing a 400-room headquarters-quality hotel.

Table C-21 presents a summary of the estimated economic benefits to be derived from the construction of a headquarters-quality hotel. Note that these economic impacts are gross in nature and do not consider the cost of the economic activity that would be displaced from the location of the future hotel site. As a proxy for this cost, the total economic impacts presented below can be compared to the construction impacts from the 70 residential units discussed above in addressing alternative developments at the Mohawk site.

Table C-21 Headquarters Quality Hotel Construction Related Economic Impacts Summary of Economic Impacts ($ million, except for employment)

	Direct	Indirect	Induced	Total
Erie County				
Employment	432	196	160	788
Employee Compensation	$ 14.0	$ 6.9	$ 4.5	$ 25.4
Economic Impact (industry output)	$ 52.0	$ 19.3	$ 14.0	$ 85.4
New York State				
Employment	432	206	178	815
Employee Compensation	$ 15.1	$ 7.9	$ 5.4	$ 28.4
Economic Impact (industry output)	$ 52.0	$ 20.9	$ 15.8	$ 88.8

Table C-21 shows that the construction of the hotel would generate a non-recurring annual total of 788 short-term jobs and a total of $85.4 million in total economic impact countywide. The projections assume that the hotel will be built in a 1-year period.

Headquarters Hotel Financing

In order to address comments relating to the development value and financing of a new headquarters-quality hotel, this EIS also includes an updated hotel financing hypothetical originally provided by Economics Research Associates (ERA). The financing hypothetical update is useful because it uses current Erie County hotel occupancy and room rate information that is supplemented with data originally provided by ERA. Table C-22 shows the number of rooms and average room rate for the core hotels in the closest proximity to the proposed convention center alternatives. The revised financing hypothetical was carried out using data for Erie County as a whole and more recent hotel occupancy rate information obtained from Smith Travel Research reflecting annual average occupancy from January to October 2001. The average room rate for Erie County was used in order to provide a more conservative estimate of cash flow. It is acknowledged that average downtown area room rates would most likely be higher than the Erie County average however.

Table C-22 Calculation of Downtown Hotel Room Inventory and Room Weighted Average Double Rate

Hotel	Rooms	Average Double Room Rate
Adam's Mark Hotel	486	$ 132.00
Hampton Inn & Suites	137	$ 109.00
Holiday Inn Buffalo Downtown	168	$ 110.00
Hyatt Regency Buffalo	395	$ 139.00
Radisson Suites Hotel Buffalo Downtown	146	$ 120.00
Total (Downtown Sample)	1,332	$ 127.62
Erie County	7,678	$74.34

Source: Smith Travel Research, Standard Historical Trend, Erie County, Jan.-Oct. 2001 and information provided by select downtown hotels.

Table C-23 shows the steps that were used to update the hypothetical.

Table C-23 Comparison and Update of Hotel Development Costs, Funding Ability and Identification of Funding Gap for 400-Room Headquarters Quality Hotel

	ERA Study March 1998	E & E Update January 2002
1 Average Cost to Construct a Room	$ 153,208	$ 166,996
2 Number of Rooms	400	400
3 Hotel costs	$ 61,283,200	$ 66,798,400
Income Generation and Financing Hypothetical		

Table C-23 Comparison and Update of Hotel Development Costs, Funding Ability and Identification of Funding Gap for 400-Room Headquarters Quality Hotel

		ERA Study March 1998	E & E Update January 2002
4	Occupancy Rate [a]	65.0%	65.5%
5	Average Daily Room Rate [a]	$ 85	$ 74.34
6	Total Annual Room Revenue	$ 8,066,500	$ 7,109,134
7	Ratio of Room Revenue to Total Revenue	51.1%	51.1%
8	Total Annual Hotel Revenue	$ 15,785,714	$ 13,912,200
9	Income before depreciation, rent, amortization and other taxes (as a % of Total Revenue)	23.2%	23.2%
10	Income before depreciation, rent amortization and other taxes (Estimate)	$ 3,662,286	$ 3,227,630
11	Income Capitalization Rate [b]	11.0%	8.93%
12	Project Value, amount of development costs the project would support	$ 33,293,506	$ 36,143,673
13	Funding Gap = hotel cost less capitalized value	$ 27,989,694	$30,654,727

[a] Source: Smith Travel Research Standard Historical Trend, Erie County, Jan.-Oct. 2001.
[b] Updated capitalization rate calculated as average prime rate for 2001 (Jan-Dec) plus a risk premium of 2% for the Buffalo market.

Step 10 of Table C-23 shows that the hotel could be expected to generate $3.2 million annually to support private debt service, given the assumptions used. This cash flow estimate was based on a 65.5% occupancy rate and an average daily room rate of $74.34. Step 13 of Table C-23 shows the funding gap, which in this case was calculated by subtracting the estimated hotel capitalized value from the total development costs. The projected value, based on capitalized cash flow, is less than the estimated construction cost. Therefore, to make the project feasible for a private developer, some amount of public subsidy would be necessary. The funding gap or required financing subsidy identifies a ballpark estimate of the amount of public subsidy that would be required to entice private development of a headquarters-quality hotel.

The hypothetical above does not consider the impact on hotel occupancy rates from an additional 400 rooms entering the market in downtown Buffalo and the resulting impact on average room rates. To address this issue, a sensitivity analysis considered hotel occupancy rates of 40%, 50%, 60%, and 70%, the corresponding average room rates and the impact on cash flow available for debt service.

The average room rates that correspond to these hotel occupancy rates were identified from the following relationship depicted in the chart below. The scatter plot shows the average relationship between hotel occupancy rates and average room rates for Erie County. The line indicates that occupancy rates of 40%, 50%, 60%, and 70% correspond to room rates of $61.5, $65.0, $68.6, and $72.2 on average, respectively.

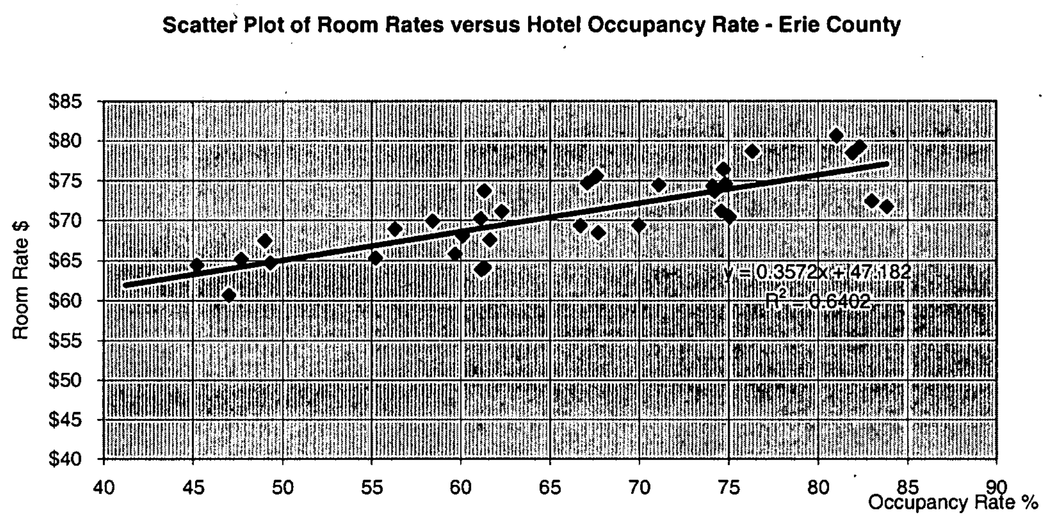


Table C-24 shows the results of the sensitivity analysis.

Table C-24 Comparison of Hotel Cash Flow, Project Value and Funding Gap Under Varying Market Conditions for a 400 Room HQ Hotel

Market Scenario Occupancy Rate %/ Room Rate $	Cash Flow	Project Value	Funding Gap
40% - $61.47	$1.6	$18.3	$48.5
50% - $65	$2.2	$24.1	$42.7
60% - $68.6	$2.7	$30.6	$36.2
70% - $72.2	$3.4	$37.5	$29.3

Table C-24 shows that an occupancy rate of 40% and an average room rate of $61.5 would raise the funding gap to $48.5 million from the updated estimate of $30.6 million shown in Table C-23. The sensitivity analysis is another way of modeling excess supply of room inventory at various times of the year. Lower room rates are associated with lower occupancy rates. Table C-24 is useful because it brackets the changes in key financing variables that would be influenced by an oversupply of rooms given slower eco-

nomic conditions. For example, if expected convention-related hotel activity did not reach expectations, lower associated occupancy rates would raise the funding gap and subsidies required for hotel financing suggested by Table C-24.

Table C-24 can be used to respond to questions regarding how much the construction of a headquarters-quality hotel would add to total project costs (considering the public subsidy) under varying market conditions. Table C-24 shows that depending on market conditions, total convention center development costs (presented in Table C-15) could be expected to rise by between $29 and $48.5 million with the addition of the hotel.

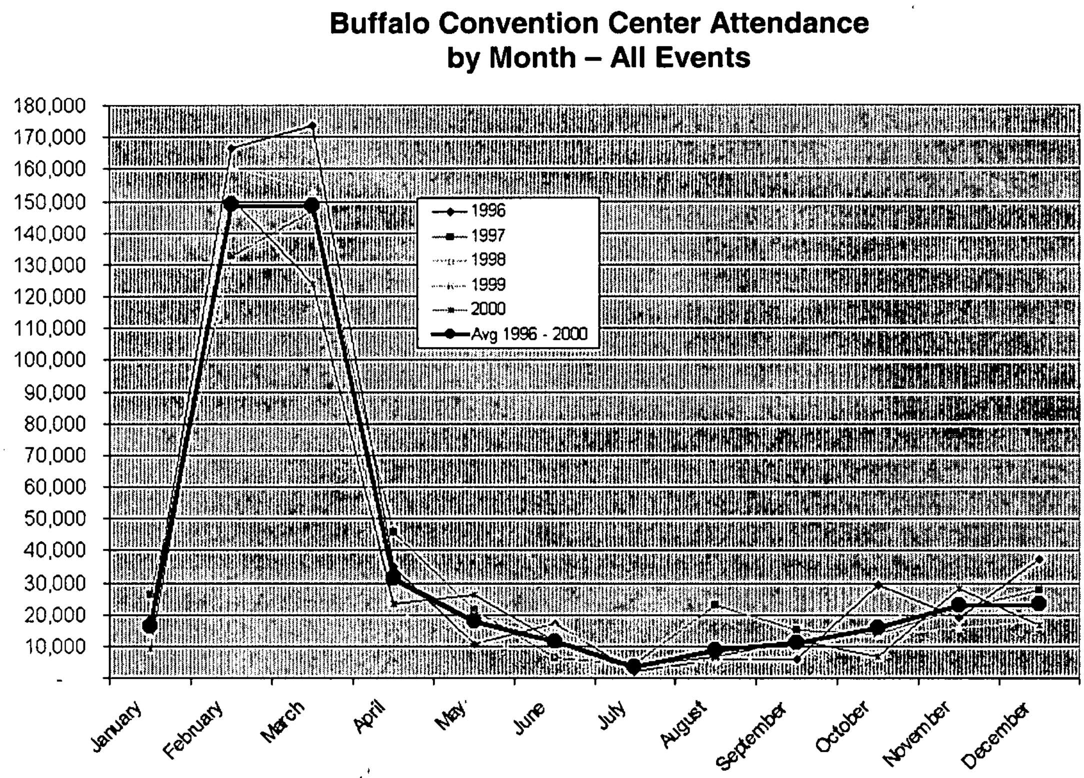
It should also be noted that this EIS evaluated the historic seasonal fluctuations in convention center attendance over the course of a given year. Contrary to common perceptions, the bulk of convention center activity occurs within the first quarter of a given year. The figure below shows the historic pattern. This point is first noted in Section 2 (Purpose and Need) of this EIS.

It should also be noted that this EIS evaluated the historic seasonal fluctuations in convention center attendance over the course of a given year. Contrary to common perceptions, the bulk of convention center activity occurs within the first quarter of a given year. This point is first noted in Section 2 (Purpose and Need) of this EIS.

C.9 Net Economic Impact Summary and Analysis Related to the Justification of the Public Investment

In order to compare convention center alternatives and the net economic impacts that were estimated for each option, estimated statewide benefits and public funding obligations associated with both the capital and operational financing needs of the centers and complementary headquarters-quality hotel were compared on an annual basis.

Convention centers, stadiums, and arenas are typically evaluated based on net economic impact analysis. This sort of analysis is based on the assumption that facilities serve a unique role in importing new dollars, spent by visitors, into the economy. Out-of-town attendees or visitors are relevant because they would not



spend money in the region without the events at these facilities. As mentioned above, the new spending stimulus is multiplied throughout the economy by successive rounds of spending. Consequently, multipliers are needed to fully evaluate the extent of these impacts.

In the enterprise-based analysis, only the direct costs of running and operating the convention center would be considered and compared to the financial revenues to be earned from events, without considering any subsidies. The operating deficits show that, taken alone, the enterprise-level analysis would not justify the required public investment. Most convention centers are developed on the basis that the centers themselves will not likely generate enough revenue to cover their operational costs (Petersen, Chapter 8).

The fiscal analysis compares new tax revenues created by convention delegates to the operating deficits and convention center's amortized development costs. The fiscal analysis does not consider the center's role as an economic catalyst to a region. Fiscal analysis does not consider the potentially positive contribution that the center will make to the region's economy by creating new jobs and expanding regional output..

The economy-wide perspective compares all of the quantifiable costs of running the convention center with all of the quantifiable benefits, regardless of who bears the costs or enjoys the benefits. The benefits from an economy-wide perspective include all of the income generated by spending by visitors who are responsible for importing dollars into our region.

Table C-25 shows that the return on the convention center investment is negative when one only considers these flows. In fact, indirect costs related to infrastructure demands are not even quantified, and the net present value is negative. The relevant discount rate in this kind of calculation is the state's cost of capital. For the convention center alternatives, this would most likely be a weighted average of state and local (county) bond yields on general obligation bonds. In table C-25, 5% is used as an approximation for the public cost of capital.

Table C-25 Mohawk Alternative - Fiscal Analysis ($ millions)

	Costs				Benefits		
Year	Debt Service	Operating Deficit	CVB Marketing Costs	Indirect Costs (e.g., roads, fire department services)	State and Local Tax Revenues	Net Benefits	Discounted Net Benefits
2005			-0.7			-0.7	-0.576
2006	-15.0	-2.73	-0.7			-18.43	-14.440
2007	-15.0	-3.07	-0.7		4.9	-13.87	-10.350
2008	-15.0	-3.53	-0.7		5.4	-13.83	-9.829
2009	-15.0	-4.12	-0.7		5.7	-14.12	-9.557
2010	-15.0	-4.12	-0.7		6.3	-13.52	-8.715
2011	-15.0	-4.12	-0.7		6.3	-13.52	-8.300
2012	-15.0	-4.12	-0.7		6.3	-13.52	-7.905
2013	-15.0	-4.12	-0.7		6.3	-13.52	-7.528
2014	-15.0	-4.12	-0.7		6.3	-13.52	-7.170
2015	-15.0	-4.12	-0.7		6.3	-13.52	-6.829
NPV @	5%						$ (91.20)

Table C-25 shows that the expected tax revenues do not provide an adequate return on investment. The table shows that the sum of the discounted net present value of benefits is negative over the period shown. The evaluation of the convention center alternatives must consider the total wealth that is created in our region in calculating a return on investment.

Table C-26 provides a public cost-benefit evaluation of the proposed convention center projects and compares the relevant benefits represented by annual statewide economic impacts (i.e., total

industry output) to the annualized public expenditures associated with delivering these benefits and creating wealth in our region. The relevant annual public expenditures are derived from capital and operational costs associated with the center's annual operation.

Table C-26 Net Annual Economic Impact Estimate Based on Projections for Year 2007 Impacts and Costs ($ millions)

	Mohawk Site	Waterfront Site	Expansion Alternative
(1) Annual economic impact (statewide)	$67.3	$49.9	$44.4
(2) Approximate debt service requirement	$(15.0)	$(13.6)	$(15.3)
(3) Operating deficit in a stabilized year	$(2.7)	$(2.7)	$(2.8)
(4) Estimated HQ Hotel Financing Subsidy	$(3.07)	$(3.07)	$(3.07)
(5) Total Estimated Annual Expenditure	$(20.8)	$(19.4)	$(21.2)
(6) Net Annual Economic Impact	$46.5	$30.5	$23.2

*Note: Hotel subsidy is assumed to be phased in over a 10-year period.

Table C-26 shows the relevant benefit and expenditure streams that were used in the net economic impact estimate. It is noted that the Johnson study also presented a similar kind of annual cost-benefit comparison that focused on the most important benefit and cost streams (Johnson, *Buffalo Convention Center Feasibility Study, Executive Summary,* p. 18, 1997).

In this particular comparison, only the new convention center alternatives are compared, because they involve similar cost streams. The Modified No-Action Alternative and the No-Action Alternative are not comparable to the other alternatives, so they are not included in this table.

Table C-26 summarizes an economy-wide analysis. The economy-wide analysis is in contrast to an enterprise-based analysis or state fiscal analysis.

Annual net benefit comparisons are acceptable when all costs and benefits are expressed on an annualized basis. This comparison avoids the need to assign all of the future anticipated economic impacts and costs to future years and then to discount the streams to present value. However, the EIS makes this comparison for all alternatives.[5]

In addition, to be as comprehensive as possible, the estimated annual public subsidy for a 400-room headquarters-quality hotel is

[5] See Noll, supra, page 90.

also included as a taxpayer-sourced expenditure. The total identified subsidy is spread over a 10-year period. This treatment recognizes that the tax incentives and/or other subsidies required to render the hotel attractive to a developer would be phased in over several years. The lump sum subsidy associated with the hotel was calculated above in Table C-23.

The annual recurring total economic impacts (benefits) flowing from the headquarter-quality hotel's total operational spending are only partially represented in the calculation below. This is because the total economic impacts only include consumption benefits from out-of-town delegates related to convention center activities. The remaining economic impacts that can be attributed to the hotel's other customer spending is not considered below. However, this recurring economic impact benefit is not needed to demonstrate that the convention center activity (together with annual hotel financing) generates positive net benefits to the community.

The first row of Table C-26 compares the annual statewide economic impacts (i.e., total industry output) expected to be generated from the convention center alternatives in a stable year of demand, 2007, from Table C-6 above. The second row is an estimate of annual debt service requirements (that was calculated as equivalent to approximately 9.7% of total project costs less site acquisition. The third row shows an estimate of the operating deficit of the facility in a stable year of demand, 2007. The fourth row adds an estimate of the amortized headquarters-quality hotel funding gap from Table C-23 above. The estimated funding gap is assumed to be non-site-specific and it is also assumed that this gap will be met with public funds. The fifth row shows the estimated total annual public expenditures that would be associated with each convention center alternative.

The net annual economic impact comparisons demonstrate that the estimated public expenditures would achieve the largest return on public investment from the Mohawk site alternative. Given the assumptions that were used, the Waterfront site and Expansion/Renovation alternatives would not add as much wealth to our region, in terms of economic output, as the Mohawk site would.

To reiterate, the main reasons for the differences in net economic impacts stem from the assumptions used that relate to attendance, direct spending per out-of-town delegate day, and relative expenditures, some of which flow from these assumptions. For the Waterfront alternative, direct spending per out-of-town delegate day could reasonably be expected to be less than the Mohawk facility's

due to the isolation of this alternative from the CBD. In addition, the relative size of the capital costs also influences the above calculations of net economic impact by affecting debt service costs.

Table C-27 responds directly to citizen comments on the costs and benefits per job created associated with the convention center alternatives. Table C-27 compares the total economic impact per job created to the public cost per job created. The net economic impact per job is the difference between the two items. Economic impact is measured by total industry output per job created, while the public cost is represented by the public funding costs (both capital and operational) presented in Table C-26.

Table C-27 Calculation of Net Annual Economic Impact per Job Created for Convention Center Options – Projected Year 2007

	Mohawk Site	Waterfront Site	Expansion Alternative
(1) Annual number of jobs created	857	636	566
(2) Annual economic impact (output)	$67.3	$49.9	$44.4
(3) Approximate debt service requirement	$(15.0)	$(13.6)	$(15.3)
(4) Operating deficit in a stabilized year	$(2.7)	$(2.7)	$(2.8)
(5) Estimated HQ Hotel Financing Subsidy	$(3.07)	$(3.07)	$(3.07)
(6) Total Estimated Annual Expenditure	$(20.8)	$(19.4)	$(21.2)
(7) Cost per job created from center operations	$24,271	$30,503	$37,456
(8) Economic Impact per job created from center operations	$78,530	$78,459	$78,445
(9) Net economic impact per job created	$54,259	$47,956	$40,989

Table C-27 presents the total annual number of jobs that would be supported statewide by convention center operations. The Mohawk site yields the highest net benefits (economic impact) per job created. Given the assumptions that were used, the Mohawk site results in the most prudent use of the taxpayer's dollar in delivering job creation and wealth to our region.

Comparing Net Present Value of Alternatives Over a 10-Year Horizon

The various alternatives were also compared over a 10-year planning horizon by comparing the projected cost streams for each alternative to the projected economic impacts (measured by eco-

nomic output) that would be generated county-wide. The following comparison is based on the economy-wide perspective that compares all of the quantifiable costs of running the convention center with all of the quantifiable benefits, regardless of who bears the costs or enjoys the benefits.

Although the Modified No-Action Alternative involves a different scale of proposed capital investment, the alternative is included in this section because the EIS evaluates and contrasts all alternatives over the 10-year planning horizon.

Table C-28 shows a summary of the sum of the net present value for all alternatives over a 10-year period. The first column, called Annual Flows, is for all net-benefit streams or flows over this period. The second column, called Incremental, compares the net-benefit annual flows to the flows that would be generated under the No-Action Alternative. The No-Action Alternative is regarded as a baseline. The Incremental column subtracts the No-Action Alternative net-benefit flows from the various alternatives to show how the incremental net benefits compare to other alternatives. This procedure is consistent with what is termed With/Without Analysis in cost-benefit analysis. The No-Action Alternative is considered the without investment scenario, and the other alternatives are with investment scenarios. Tables C-29 through C-38 show the detailed flows and calculations behind the summary table, C-28.

Table C-28 Summary of Net Present Value Analysis by Alternative ($ millions) (2002 – 2011) Using Discount Rate of 12%*

Alternative	Annual Flows NPV	Incremental: Compared to No-action Alternative as Baseline
(1) Mohawk Alternative	$212.5	$33.6
(2) Waterfront Alternative	$167.7	$(11.1)
(3) Expansion Alternative	$150.8	$(28.1)
(4) Modified No-Action Alternative	$193.3	$14.4
(5) No-Action Alternative	$178.9	-

Note: * Discount rate of 12% used as approximation for the opportunity cost of capital

Table C-29 shows the calculation for the economic return on investment for the Mohawk alternative, while Tables C-30 through C-38 show the calculations for the other alternatives. The top portion of each table shows the annual cost and benefit flows, and the bottom portions show the incremental flows compared to the base-

line situation or No-Action Alternative. The assumptions used in the analysis are provided below.

Assumptions Used in Analysis **Discount Rate.** Note that because the economic analysis considers broader measures of costs and benefits, a higher discount rate is used than is used in the fiscal analysis. This discount rate is often referred to as the opportunity cost of capital and reflects society's alternate use of scarce resources.

Debt Service. It was assumed that the existing debt service on the present facility would be paid off over the next two years. The debt service for each of the other alternatives is based on a 10-year amortization period. For the Modified No-Action Alternative, it is assumed that capitalized interest would equal 3.5%.

Operating Deficit. The operating deficit cost flows are summarized in Table C-2 and vary for each alternative.

CVB Marketing Costs. CVB marketing costs were assumed to be equal for all of the alternatives (for the sake of the projected comparisons) and were based on evaluating past studies and examining the relationship of other convention center's marketing costs to other cost flows. These costs were increased for expected inflation over time using an inflation rate of 2.5%.

Estimated Indirect Costs. Estimated indirect costs (e.g., roads, fire department services) were formed by making assumptions from the utilities, infrastructure, and community services portion of the EIS and by evaluating other convention centers. These costs were also increased for expected inflation over time using an inflation rate of 2.5%.

Estimated Financial Subsidy for Hotel. The estimated financial subsidy for the hotel is based on spreading the estimated public subsidy portion of the hotel (calculated in Table C-23) over a 10-year period.

Annual Economic Impact. Annual economic impact is equal to the projected total economic output for Erie County, as shown in Table C-6.

Table C-29 Mohawk Alternative - Economic Analysis ($ millions)-Annual Flow Levels

	Costs					Benefits		
Year	Debt Service	Operating Deficit	CVB Marketing Costs	Estimated Indirect Costs (e.g., roads, fire department services)	Estimated Financial Subsidy for Hotel	Annual Economic Impact	Net Benefits	Discounted Net Benefits
2002	-0.66	-1.03	-0.70	-3.50		43.4	37.5	33.5
2003	-0.66	-1.09	-0.72	-3.59		42.0	35.9	28.6
2004		-1.16	-0.74	-3.68		40.2	34.6	24.7
2005		-1.25	-0.75	-3.77	(3.07)	38.8	30.0	19.0
2006	-14.99	-2.50	-0.77	-3.86	(3.07)	37.1	11.9	6.7
2007	-14.99	-2.73	-0.79	-3.96	(3.07)	65.7	40.2	20.3
2008	-14.99	-3.07	-0.81	-4.06	(3.07)	71.7	45.7	20.7
2009	-14.99	-3.53	-0.83	-4.16	(3.07)	77.6	51.0	20.6
2010	-14.99	-4.12	-0.85	-4.26	(3.07)	83.6	56.3	20.3
2011	-14.99	-4.12	-0.87	-4.37	(3.07)	83.6	56.2	18.1
NPV @ 12%								$ 212.5

Table C-30 Mohawk Alternative - Economic Analysis ($millions) Incremental Flows - Mohawk Annual Flows Less Baseline Flows, Baseline = No-Action Alternative

	Costs					Benefits		
Year	Debt Service	Operating Deficit	CVB Marketing Costs	Estimated Indirect Costs (e.g., roads, fire department services)	Estimated Financial Subsidy for Hotel	Annual Economic Impact	Net Benefits	Discounted Net Benefits
2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00
2005	0.00	0.01	0.00	0.00	-3.07	0.00	-3.06	-1.95
2006	-14.99	-1.12	0.00	0.00	-3.07	0.00	-19.18	-10.88
2007	-14.99	-1.21	0.00	0.00	-3.07	30.20	10.94	5.54
2008	-14.99	-1.37	0.00	0.00	-3.07	37.70	18.28	8.27
2009	-14.99	-1.60	0.00	0.00	-3.07	45.20	25.54	10.32
2010	-14.99	-1.90	0.00	0.00	-3.07	52.70	32.75	11.81
2011	-14.99	-1.90	0.00	0.00	-3.07	52.70	32.75	10.54
NPV @ 12%								$ 33.6

Table C-31 Waterfront Alternative - Economic Analysis ($ millions) Annual Flow Levels

	Costs					Benefits		
Year	Debt Service	Operating Deficit	CVB Marketing Costs	Estimated Indirect Costs (e.g., roads, fire department services)	Estimated Financial Subsidy for Hotel	Annual Economic Impact	Net Benefits	Discounted Net Benefits
2002	-0.66	-1.03	-0.70	-3.50	0.00	43.4	37.5	33.5
2003	-0.66	-1.09	-0.72	-3.59	0.00	42.0	35.9	28.6
2004		-1.16	-0.74	-3.68	0.00	40.2	34.6	24.7
2005		-1.25	-0.75	-3.77	-3.07	38.8	30.0	19.0
2006	-13.58	-2.50	-0.77	-3.86	-3.07	37.1	13.3	7.5
2007	-13.58	-2.74	-0.79	-3.96	-3.07	48.7	24.6	12.4
2008	-13.58	-3.08	-0.81	-4.06	-3.07	50.5	25.9	11.7
2009	-13.58	-3.55	-0.83	-4.16	-3.07	52.4	27.2	11.0
2010	-13.58	-4.13	-0.85	-4.26	-3.07	54.2	28.3	10.2
2011	-13.58	-4.13	-0.87	-4.37	-3.07	54.2	28.2	9.1
NPV @ 12%								$ 167.7

Table C-32 Waterfront Alternative - Economic Analysis ($ millions) Incremental Flows, Waterfront Annual Flows, Less Baseline Flows. Baseline = No-Action Alternative

	Costs					Benefits		
Year	Debt Service	Operating Deficit	CVB Marketing Costs	Estimated Indirect Costs (e.g., roads, fire department services)	Estimated Financial Subsidy for Hotel	Annual Economic Impact	Net Benefits	Discounted Net Benefits
2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00
2005	0.00	0.01	0.00	0.00	-3.07	0.00	-3.06	-1.95
2006	-13.58	-1.13	0.00	0.00	-3.07	0.00	-17.78	-10.09
2007	-13.58	-1.21	0.00	0.00	-3.07	13.20	-4.66	-2.36
2008	-13.58	-1.38	0.00	0.00	-3.07	16.57	-1.46	-0.66
2009	-13.58	-1.61	0.00	0.00	-3.07	19.93	1.67	0.67
2010	-13.58	-1.91	0.00	0.00	-3.07	23.30	4.74	1.71
2011	-13.58	-1.91	0.00	0.00	-3.07	23.30	4.74	1.53
NPV @ 12%								$ (11.1)

Table C-33 Expansion Alternative - Economic Analysis ($ millions) Annual Flow Levels

	Costs					Benefits		
Year	Debt Service	Operating Deficit	CVB Marketing Costs	Estimated Indirect Costs (e.g., roads, fire, department services)	Estimated Financial Subsidy for Hotel	Annual Economic Impact	Net Benefits	Discounted Net Benefits
2002	-0.66	-1.03	-0.70	-3.50		43.4	37.5	33.5
2003	-0.66	-1.09	-0.72	-3.59		42.0	35.9	28.6
2004		-1.16	-0.74	-3.68		40.2	34.6	24.7
2005		-1.25	-0.75	-3.77	$ (3.07)	38.8	30.0	19.0
2006	-15.34	-2.52	-0.77	-3.86	$ (3.07)	37.1	11.5	6.5
2007	-15.34	-2.76	-0.79	-3.96	$ (3.07)	43.4	17.5	8.9
2008	-15.34	-3.11	-0.81	-4.06	$ (3.07)	44.8	18.4	8.3
2009	-15.34	-3.56	-0.83	-4.16	$ (3.07)	46.2	19.2	7.8
2010	-15.34	-4.14	-0.85	-4.26	$ (3.07)	47.6	19.9	7.2
2011	-15.34	-4.14	-0.87	-4.37	$ (3.07)	47.6	19.8	6.4
NPV @ 12%								$ 150.8

Table C-34 Expansion Alternative - Economic Analysis ($ millions)- Incremental Flows – Expansion Annual Flows Less Baseline Flows. Baseline = No-Action Alternative

	Costs					Benefits		
Year	Debt Service	Operating Deficit	CVB Marketing Costs	Estimated Indirect Costs (e.g., roads, fire department services)	Estimated Financial Subsidy for Hotel	Annual Economic Impact	Net Benefits	Discounted Net Benefits
2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00
2005	0.00	0.01	0.00	0.00	-3.07	0.00	-3.06	-1.95
2006	-15.34	-1.15	0.00	0.00	-3.07	0.00	-19.56	-11.10
2007	-15.34	-1.24	0.00	0.00	-3.07	7.90	-11.75	-5.95
2008	-15.34	-1.40	0.00	0.00	-3.07	10.83	-8.98	-4.06
2009	-15.34	-1.63	0.00	0.00	-3.07	13.77	-6.28	-2.53
2010	-15.34	-1.92	0.00	0.00	-3.07	16.70	-3.63	-1.31
2011	-15.34	-1.92	0.00	0.00	-3.07	16.70	-3.63	-1.17
NPV @ 12%								$ (28.1)

Table C-35 Modified No-action Alternative - Economic Analysis ($ millions) Annual Flow Levels

	Costs					Benefits		
Year	Debt Service	Operating Deficit	CVB Marketing Costs	Estimated Indirect Costs (e.g., roads, fire department services)	Estimated Financial Subsidy for Hotel	Annual Economic Impact	Net Benefits	Discounted Net Benefits
2002	-0.66	-1.01	-0.70	-3.50		43.4	37.5	33.5
2003	-1.70	-1.06	-0.72	-3.59		42.0	34.9	27.8
2004	-1.04	-1.14	-0.74	-3.68		40.2	33.6	23.9
2005	-1.04	-1.23	-0.75	-3.77		38.8	32.0	20.3
2006	-1.04	-1.35	-0.77	-3.86		37.1	30.1	17.1
2007	-1.04	-1.50	-0.79	-3.96		42.3	35.0	17.7
2008	-1.04	-1.68	-0.81	-4.06		42.4	34.8	15.7
2009	-1.04	-1.92	-0.83	-4.16		42.4	34.5	13.9
2010	-1.04	-2.21	-0.85	-4.26		42.5	34.1	12.3
2011	-1.04	-2.21	-0.87	-4.37		42.5	34.0	11.0
NPV @ 12%								$ 193.3

Table C-36 Modified No-action Alternative - Economic Analysis ($ millions) Incremental Flows - Modified No-action Alternative Annual Flows Less Baseline Flows. Baseline = No-Action Alternative

	Costs					Benefits		
Year	Debt Service	Operating Deficit	CVB Marketing Costs	Estimated Indirect Costs (roads, fire, etc.)	Estimated Financial Subsidy for Hotel	Annual Economic Impact	Net Benefits	Discounted Net Benefits
2002	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.02
2003	-1.04	0.03	0.00	0.00	0.00	0.00	-1.01	-0.81
2004	-1.04	0.03	0.00	0.00	0.00	0.00	-1.01	-0.72
2005	-1.04	0.03	0.00	0.00	0.00	0.00	-1.01	-0.64
2006	-1.04	0.03	0.00	0.00	0.00	0.00	-1.01	-0.57
2007	-1.04	0.03	0.00	0.00	0.00	6.80	5.79	2.93
2008	-1.04	0.02	0.00	0.00	0.00	8.40	7.39	3.34
2009	-1.04	0.02	0.00	0.00	0.00	10.00	8.98	3.63
2010	-1.04	0.01	0.00	0.00	0.00	11.60	10.58	3.81
2011	-1.04	0.01	0.00	0.00	0.00	11.60	10.58	3.41
NPV @ 12%								$ 14.4

Table C-37 No-action Alternative - Economic Analysis ($ millions) Annual Flow Levels

	Costs					Benefits		
Year	Debt Service	Operating Deficit	CVB Marketing Costs	Estimated Indirect Costs (roads, fire, etc.)	Estimated Financial Subsidy for Hotel	Annual Economic Impact	Net Benefits	Discounted Net Benefits
2002	-0.66	-1.03	-0.70	-3.50		43.4	37.5	33.5
2003	-0.66	-1.09	-0.72	-3.59		42.0	35.9	28.6
2004		-1.16	-0.74	-3.68		40.2	34.6	24.7
2005		-1.26	-0.75	-3.77		38.8	33.0	21.0
2006		-1.38	-0.77	-3.86		37.1	31.1	17.6
2007		-1.52	-0.79	-3.96		35.5	29.2	14.8
2008		-1.71	-0.81	-4.06		34.0	27.4	12.4
2009		-1.94	-0.83	-4.16		32.4	25.5	10.3
2010		-2.22	-0.85	-4.26		30.9	23.6	8.5
2011		-2.22	-0.87	-4.37		30.9	23.4	7.5
NPV @12%								$ 178.9

D

Traffic Study

D

Traffic Study

APPENDIX D

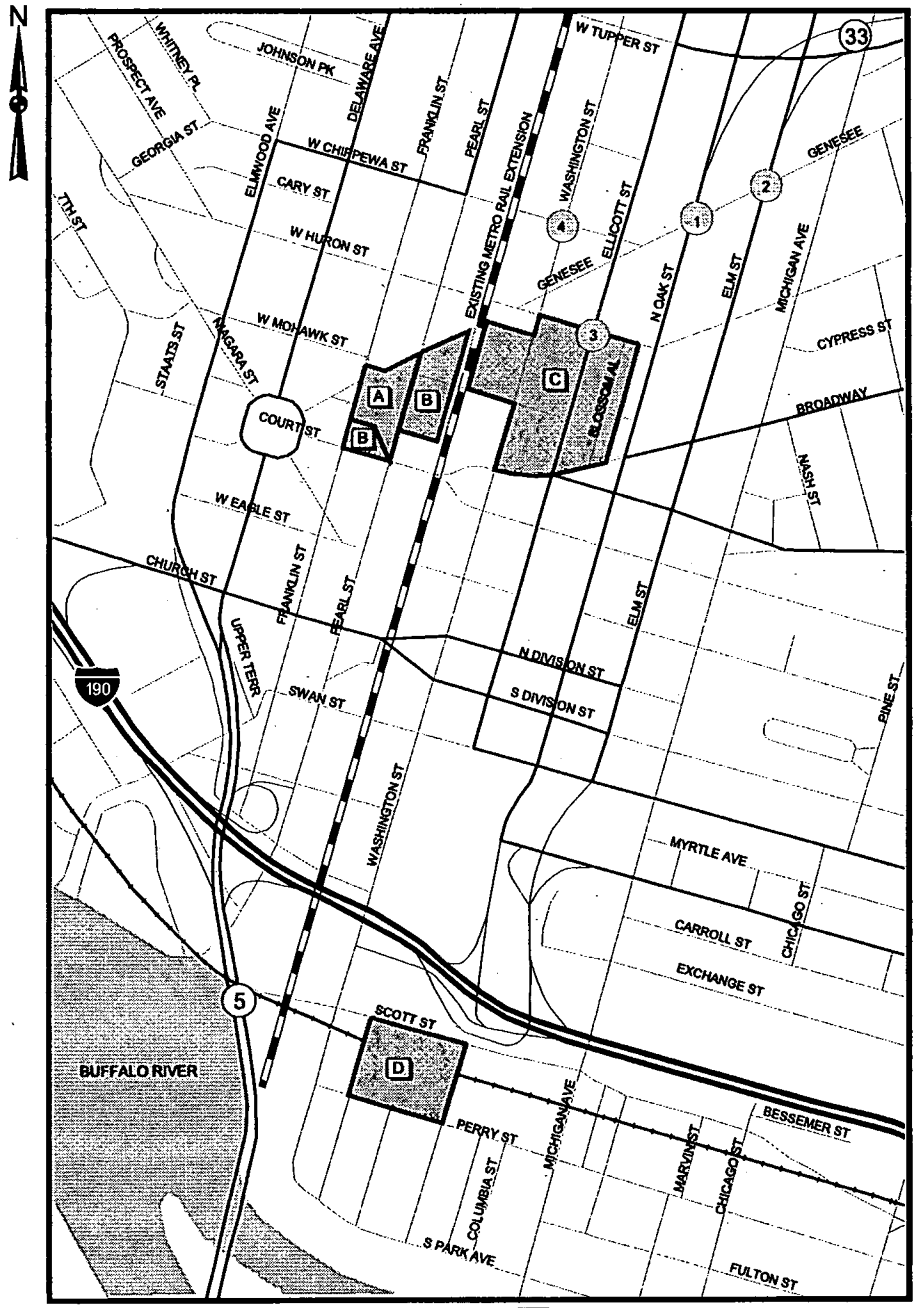
Traffic Impact Study
Proposed Buffalo Convention Center
Draft EIS

Prepared By: URS Corporation

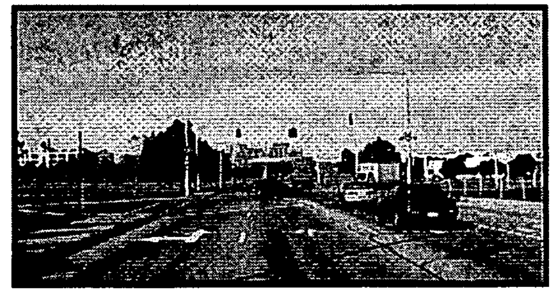
TABLE OF CONTENTS

Section 1.0	**Proposed Mohawk Site**	
	Figure 1-1	Intersection Photographs
	Figure 1-2 to 1-5	Intersection Volume Counts
	Table 1-1 to 1-5	Intersection Accident Summaries
	Figure 1-6 to 1-9	Collision Diagrams
	Table 1-6	Level of Service Summary
	Table 1-7	Parking Data Summary
	Figure 1-10	Parking Identification
Section 2.0	**Proposed Waterfront Site**	
	Figure 2-1	Intersection Photographs
	Figure 2-2 to 2-4	Intersection Volume Counts
	Table 2-1 to 2-4	Intersection Accident Summaries
	Figure 2-5 to 2-7	Collision Diagrams
	Table 2-5	Level of Service Summary
	Table 2-6	Parking Data Summary
	Figure 2-8	Parking Identification
Section 3.0	**Expansion of Existing Facility**	
	Figure 3-1	Intersection Photographs
	Figure 3-2 to 3-4	Intersection Volume Counts
	Table 3-1 to 3-4	Intersection Accident Summaries
	Figure 3-5 to 3-7	Collision Diagrams
	Table 3-5	Level of Service Summary
	Table 3-5	Parking Data Summary
	Figure 3-8	Parking Identification
Section 4.0	**Traffic Analysis / Trip Generation Figures**	
	Table 4-1	Level of Service Comparison
	Table 4-2	Conceptual Solutions Results
	Figure 4-1	Trip Distribution Figure
	Table 4-3	Occupancy Assumptions
	Figure 4-2	Parking Demand
	Table 4-4	Average Accident Rates
Section 5.0	**Synchro 5.0 Output**	
	Section 5-1	Existing / No Build / AM Peak
	Section 5-2	ETC / No Build / AM Peak
	Section 5-3	ETC + 5 / No Build / AM Peak
	Section 5-4	Existing / No Build / PM Peak
	Section 5-5	ETC / No Build / PM Peak
	Section 5-6	ETC + 5 / No Build / PM Peak
	Section 5-7	ETC / Build / AM Peak
	Section 5-8	ETC + 5 / Build / AM Peak
	Section 5-9	ETC / Build / PM Peak
	Section 5-10	ETC + 5 / Build / PM Peak
	Section 5-11	NYSDOT Accident Rates

Section 1.0
Proposed Mohawk Site



(1) Photo 1: N. Oak Street and Genesee



(2) Photo 2: Elm Street and Genesee

(3) Photo 3: Ellicott Street and E. Huron Street

(4) Photo 4: Washington Street and E. Chippewa Street

1000 0 1000 Feet

A Existing Convention Center
B Proposed Expansion
C Proposed Mohawk Site
D Proposed Waterfront Site

Traffic Imapct Study
Proposed Buffalo Convention Center
Draft EIS

Note: All photographs were taken facing north.

PROPOSED MOHAWK SITE
INTERSECTION PHOTOGRAPHS

URS

FIGURE 1-1

J:\35911.00\db\GIS\volume.apr Mohawk Site
9/28/2001

Municipality BUFFALO

County ERIE

FIGURE 1-2

Intersection OAK STREET AT GENESEE

Area Type CBD

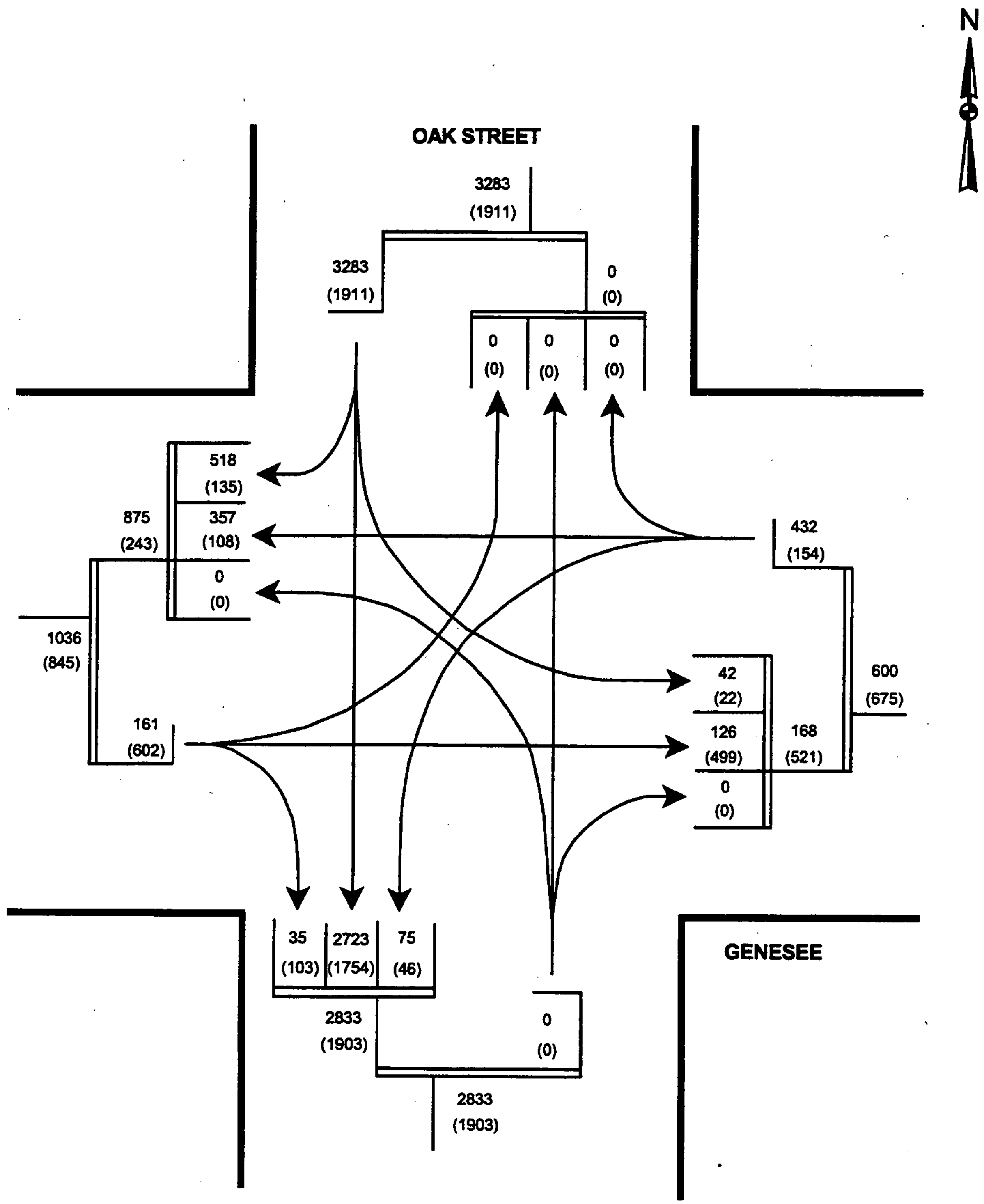
Time 7:00 - 9:45 AM / 2:00 - 5:45 PM

Peak 7:30 - 8:30 AM / 4:30 - 5:30 PM

Date Recorded 06/08/98

URS

Note: AM
(PM)



Traffic Imapct Study
Proposed Buffalo Convention Center
Draft EIS

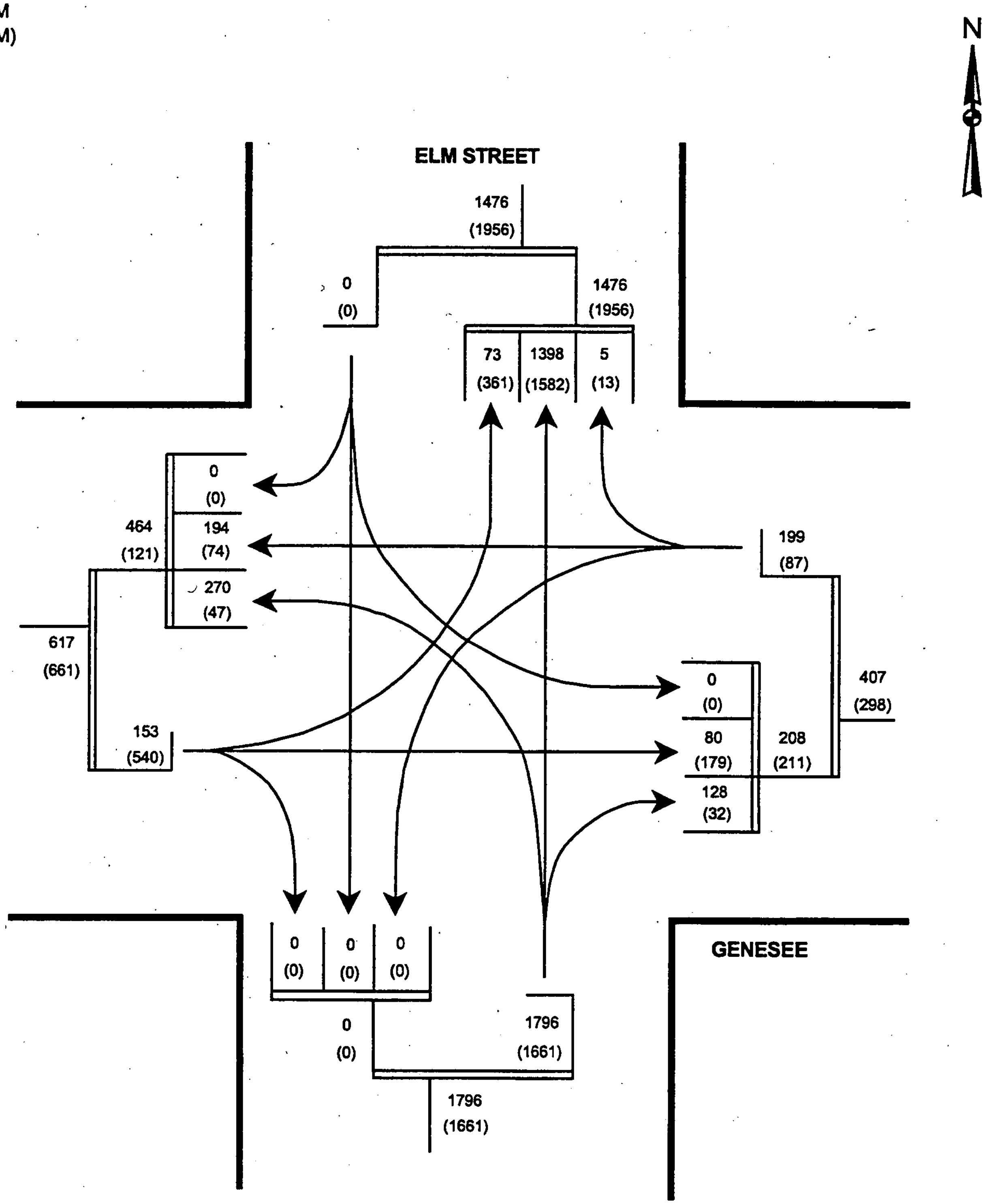
J:\35911.00\db\GIS\volume.apr Oak & Genesee
9/25/2001

Municipality	BUFFALO	County	ERIE
Intersection	ELM STREET AT GENESEE	Area Type	CBD
Time	7:00 - 9:45 AM 2:00 - 5:45 PM	Peak	7:45 - 8:45 AM 4:30 - 5:30 PM
Date Recorded	07/13/99		

FIGURE 1-3

URS

Note: AM
(PM)



J:\35911.00\db\GIS\volume.apr Elm & Genesee
9/25/2001

Traffic Imapct Study
Proposed Buffalo Convention Center
Draft EIS

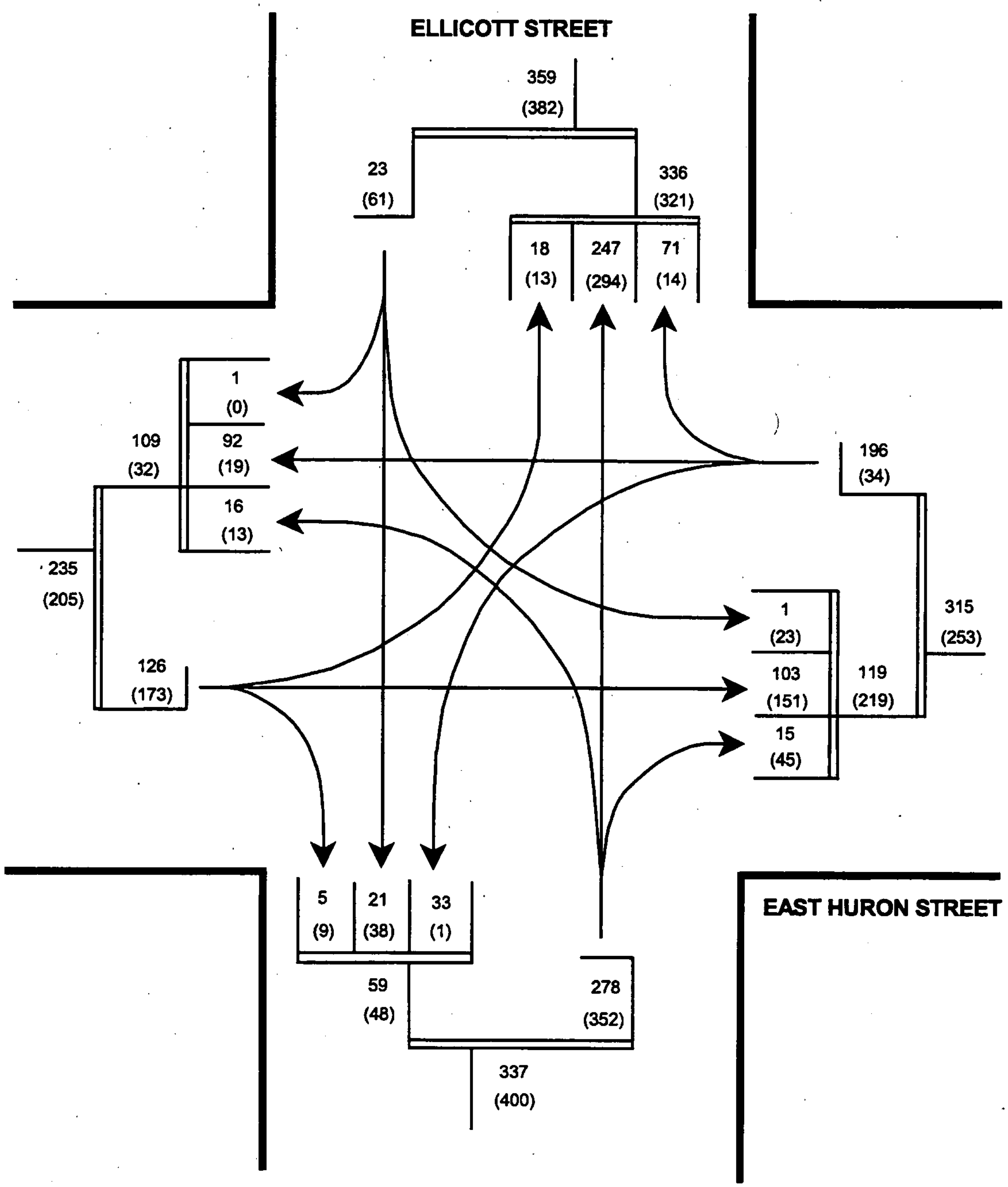
Municipality	BUFFALO	County	ERIE
Intersection	ELLICOTT STREET AT EAST HURON STREET	Area Type	CBD
Time	7:00 - 9:45 AM 2:00 - 5:45 PM	Peak	7:45 - 8:45 AM 4:30 - 5:30 PM
Date Recorded	06/06/01		

FIGURE 1-4

URS

Note: AM
(PM)

N

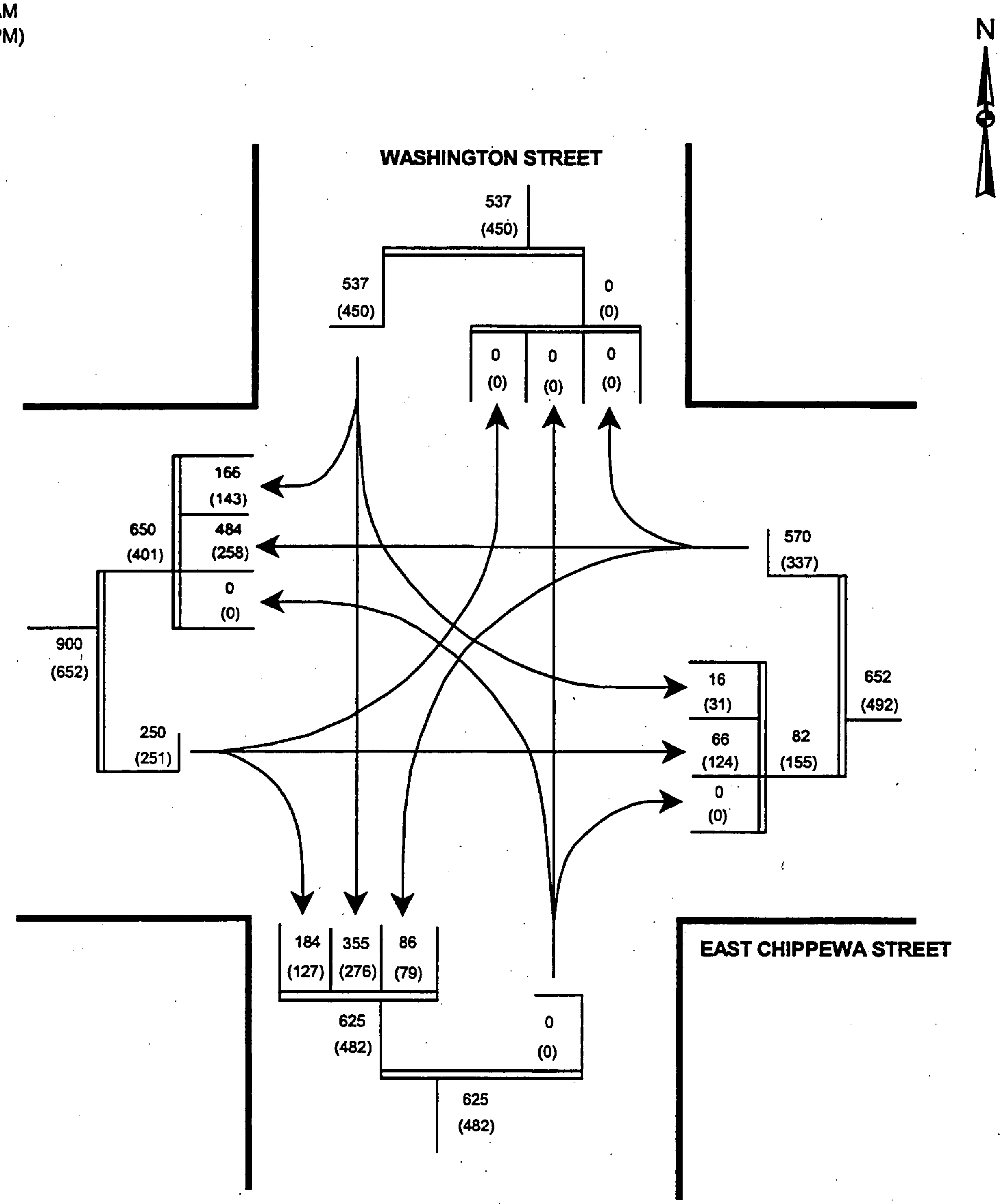


Traffic Imapct Study
Proposed Buffalo Convention Center
Draft EIS

J:\35911.00\db\GIS\volume.apr Ellicott & E. Huron
10/18/2001

Municipality: BUFFALO	County: ERIE	FIGURE 1-5
Intersection: WASHINGTON STREET AT EAST CHIPPEWA STREET	Area Type: CBD	URS
Time: 7:00 - 9:45 AM / 2:00 - 5:45 PM; Peak: 7:45 - 8:45 AM / 4:30 - 5:30 PM	Date Recorded: 06/01/98	

Note: AM
(PM)



Traffic Imapct Study
Proposed Buffalo Convention Center
Draft EIS

TABLE 1-1 SUMMARY OF ACCIDENTS PER INTERSECTION
PROPOSED MOHAWK SITE

Oak Street and Genesee

Ref No.	Date	Day of Week	Time	No. of Vehicles	No. of Injured	No. of Killed	PDO	Accident Type	Vehicle Type	Light	Pavement Conditions	Weather
1	8/5/98	W	6:00 PM	2	0	0	1	Left Turn	PC	Daylight	Dry	Clear
2	9/23/98	W	4:20 PM	2	1	0	0	Left Turn	PC	Daylight	Dry	Cloudy
3	2/5/99	F	7:05 AM	2	0	0	1	Right Angle	PC	Dawn	Dry	Clear
4	1/23/00	Su	4:35 PM	2	0	0	1	Left Turn	PC	Daylight	Dry	Cloudy
5	1/26/00	W	9:55 AM	2	0	0	1	Rear End	PC	Daylight	Wet	Cloudy
6	2/10/00	R	11:40 AM	2	0	0	1	Overtaking	PC	Daylight	Dry	Clear
7	3/2/00	R	6:20 PM	2	0	0	1	Right Angle	PC	Dark Rd Ltd	Dry	Cloudy

Elm Street and Genesee

Ref No.	Date	Day of Week	Time	No. of Vehicles	No. of Injured	No. of Killed	PDO	Accident Type	Vehicle Type	Light	Pavement Conditions	Weather
1	9/3/98	R	2:30 PM	2	0	0	1	Rear End	PC	Daylight	Dry	Clear
2	9/28/98	M	5:25 PM	2	0	0	1	Right Angle	PC	Daylight	Dry	Clear
3	11/15/98	Su	4:10 AM	2	0	0	1	Overtaking	PC	Dark Rd Ltd	Wet	Cloudy
4	11/21/98	Sa	3:15 PM	2	1	0	0	Right Angle	PC	Daylight	Dry	Cloudy
5	12/22/98	T	2:15 PM	2	0	0	1	Right Angle	PC	Daylight	Dry	Clear
6	1/1/99	R	9:15 PM	2	0	0	1	Rear End	PC	Dark Rd Ltd	Wet	Rain
7	3/4/99	R	2:30 PM	2	0	0	1	Rear End	PC	Daylight	Wet	Cloudy
8	3/21/99	Sa	9:20 PM	2	0	0	1	Rear End	PC	Dark Rd Ltd	Dry	Clear
9	4/25/99	Su	10:05 PM	2	0	0	1	Left Turn	PC	Dark Rd Ltd	Dry	Clear
10	8/4/99	W	11:17 PM	2	0	0	1	Overtaking	PC	Daylight	Wet	Cloudy
11	9/8/99	W	4:35 PM	2	1	0	0	Left Turn	PC	Daylight	Dry	Clear
12	12/27/99	M	7:40 PM	2	0	0	1	Left Turn	PC	Dark Rd Ltd	Wet	Snow
13	1/15/00	Sa	3:15 AM	2	0	0	1	Right Angle	PC	Dark Rd Ltd	Snow/Ice	Snow
14	1/29/00	Sa	8:50 AM	2	0	0	1	Right Angle	PC	Daylight	Dry	Clear
15	2/8/00	R	11:00 AM	2	0	0	1	Left Turn	PC	Daylight	Dry	Cloudy
16	4/22/00	Sa	4:25 AM	2	0	0	1	Left Turn	PC	Dark Rd Ltd	Wet	Rain
17	4/25/00	T	11:05 AM	2	0	0	1	Rear End	PC	Daylight	Dry	Clear
18	4/29/00	Sa	12:45 PM	2	1	0	0	Right Angle	PC	Daylight	Dry	Clear
19	8/23/00	W	12:05 AM	2	0	0	1	Overtaking	PC	Dark Rd Ltd	Dry	Clear
20	2/14/01	W	3:10 PM	2	0	0	1	Overtaking	PC	Daylight	Wet	Rain
21	3/23/01	F	3:45 AM	2	0	0	1	Overtaking	PC	Dark Rd Ltd	Dry	Clear

Ellicott Street and East Huron Street

Ref No.	Date	Day of Week	Time	No. of Vehicles	No. of Injured	No. of Killed	PDO	Accident Type	Vehicle Type	Light	Pavement Conditions	Weather
1	8/4/98	F	7:10 AM	2	0	0	1	Right Angle	PC	Daylight	Dry	Clear
2	4/30/99	F	3:45 PM	2	1	0	0	Overtaking	PC	Daylight	Dry	Clear
3	6/1/00	R	12:35 PM	2	1	0	0	Overtaking	PC	Daylight	Dry	Clear
4	6/9/00	F	12:05 PM	2	0	0	1	Right Angle	PC	Daylight	Wet	Rain
5	8/28/00	M	5:45 PM	2	0	0	1	Overtaking	PC	Daylight	Dry	Clear
6	2/21/01	W	8:40 AM	2	1	0	0	Right Angle	PC	Daylight	Dry	Cloudy
7	2/23/01	F	9:00 AM	2	0	0	1	Right Angle	PC	Daylight	Wet	Cloudy

Washington Street and East Chippewa Street

Ref No.	Date	Day of Week	Time	No. of Vehicles	No. of Injured	No. of Killed	PDO	Accident Type	Vehicle Type	Light	Pavement Conditions	Weather
1	7/20/98	M	8:03 AM	2	1	0	0	Right Angle	PC	Daylight	Dry	Clear
2	8/6/98	R	9:25 PM	2	0	0	1	Parked Veh.	PC	Dark Rd Ltd	Dry	Clear
3	11/17/98	T	3:00 PM	4	0	0	1	Right Turn	PC	Daylight	Dry	Cloudy
4	11/26/99	Sa	11:00 PM	2	0	0	1	Left Turn	PC	Dark Rd Ltd	Dry	Cloudy
5	2/1/99	M	4:20 PM	2	0	0	1	Right Angle	PC	Daylight	Dry	Clear
6	10/10/99	Su	5:00 AM	2	0	0	1	Parked Veh.	PC	Dark Rd Ltd	Dry	Cloudy
7	1/12/00	W	4:00 PM	2	0	0	1	Right Angle	PC	Daylight	Wet	Clear

TABLE 1-2 SUMMARY OF ACCIDENT DATA
OAK STREET AND GENESEE

TIME OF DAY	# ACC	%	DIRECTION	# VEH	%	DIRECTION	# VEH	%
12 AM - 6 AM	0	0.0	North	0	0.0	Northeast	0	0.0
6 AM - 12 PM	3	42.9	South	9	64.3	Northwest	0	0.0
12 PM - 6 PM	2	28.6	East	1	7.1	Southeast	2	14.3
6 PM - 12 AM	2	28.6	West	1	7.1	Southwest	1	7.1
Unspecified Time	0	0.0				Unknown	0	0.0
Total	7	100.0				Total	14	100.0

WEATHER	# ACC	%	ACC. TYPE	# ACC	%	ACC. TYPE	# ACC	%
Clear	3	42.9	Overtaking	1	14.3	Bicycle	0	0.0
Cloudy	4	57.1	Rear End	1	14.3	Right Turn	0	0.0
Rain	0	0.0	Right Angle	2	28.6	Driveway	0	0.0
Snow	0	0.0	Left Turn	3	42.9	Backing	0	0.0
Sleet	0	0.0	Pedestrian	0	0.0	Parked Veh.	0	0.0
Fog	0	0.0	Fixed Object	0	0.0	Other	0	0.0
Unknown	0	0.0	Head-On	0	0.0	Unknown	0	0.0
			Sideswipe	0	0.0			
Total	7	100.0				Total	7	100.0

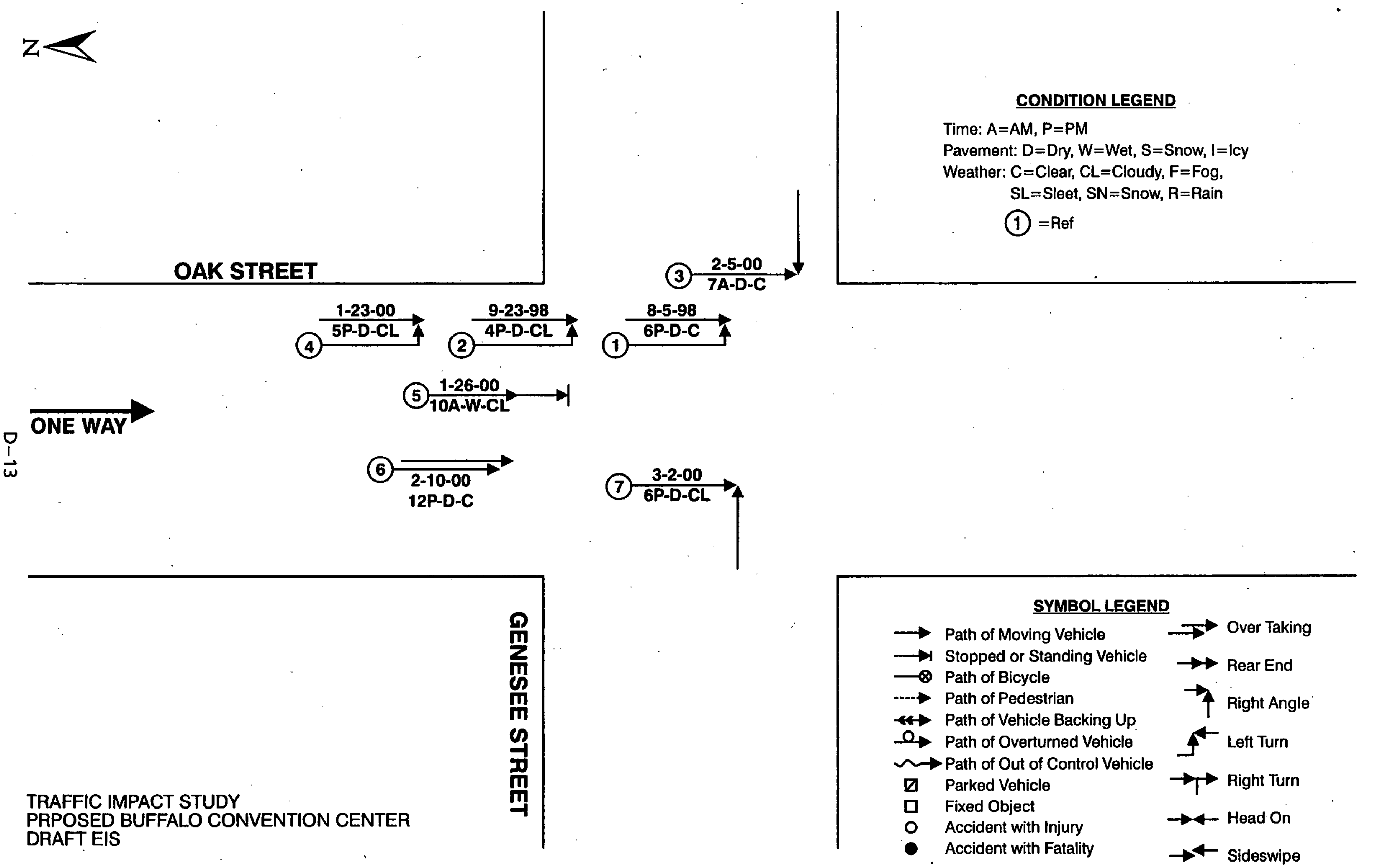
PAVEMENT	# ACC	%	ACCIDENT SEVERITY	# ACC	%
Dry	6	85.7	Fatal Injury	0	0.0
Wet	1	14.3	Non - Fatal Injury	1	14.3
Muddy	0	0.0	Property - Damage Only	6	85.7
Snow/Ice	0	0.0	Non - Reportable	0	0.0
Slush	0				
Other	0				
Total	7	100	Total	7	100.0

TIME OF YEAR	# ACC	%	TYPE OF VEHICLE	# VEH	%
Winter (Dec - Feb)	4	57.1	Passenger Cars	7	100.00
Spring (Mar - May)	1	14.3	Commercial Vehicles	0	0.0
Summer (Jun - Aug)	1	14.3			
Fall (Sep - Nov)	1	14.3			
Total	7	100.0	Total	7	100.0

DAY OF WEEK	# ACC	%	LIGHT CONDITIONS	# ACC	%
Sunday	1	14.3	Daylight	5	71.4
Monday	0	0.0	Dawn	1	14.3
Tuesday	0	0.0	Dusk	0	0.0
Wednesday	3	42.9	Dark - Road Lighted	1	14.3
Thursday	2	28.6	Dark - Road Unlighted	0	0.0
Friday	1	14.3	Unspecified	0	0.0
Saturday	0	0.0			
Total	7	100.0	Total	7	100.0

SUMMARY OF ACCIDENT SEVERITY BY YEAR	6/1/98 - 5/31/99	6/1/99 - 5/31/00	6/1/00 - 5/31/01
Fatal Accidents	0	0	0
Injury Accidents	1	0	0
Property Damage Accidents	2	4	0
Non-Reportable Accidents	0	0	0
TOTAL ACCIDENTS	**3**	**4**	**0**

AG16955C-35911.00-092001-CYT



TRAFFIC IMPACT STUDY
PRPOSED BUFFALO CONVENTION CENTER
DRAFT EIS

URS

COLLISION DIAGRAM
OAK STREET/ GENESS STREET
JUNE 1,1998 THROUGH JUNE 1, 2001

FIGURE 1-6

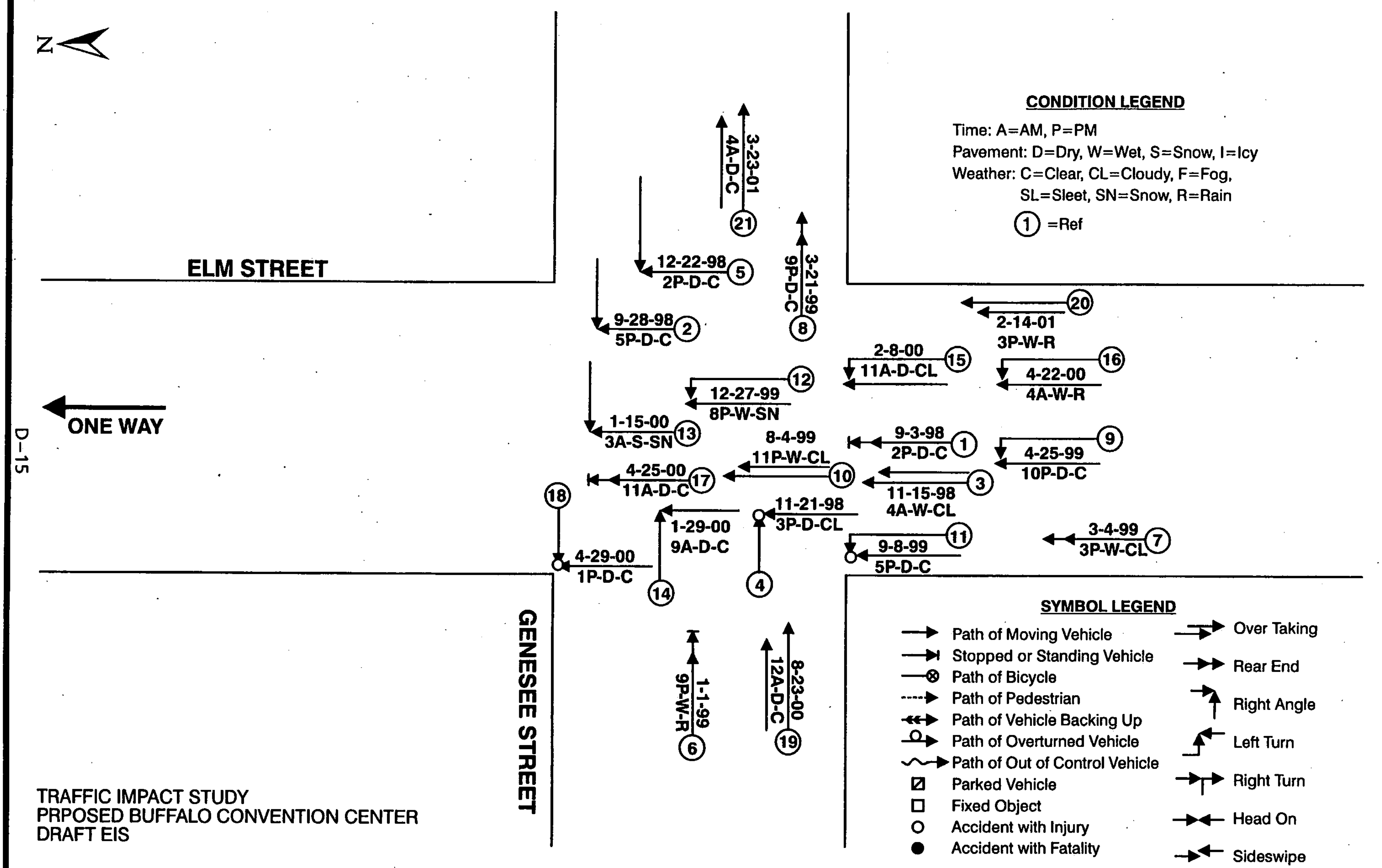
TABLE 1-3 SUMMARY OF ACCIDENT DATA
ELM STREET AND GENESEE

TIME OF DAY	# ACC	%	DIRECTION	# VEH	%	DIRECTION	# VEH	%
12 AM - 6 AM	5	23.8	North	25	59.5	Northeast	0	0.0
6 AM - 12 PM	3	14.3	South	0	0.0	Northwest	5	11.9
12 PM - 6 PM	8	38.1	East	8	19.0	Southeast	0	0.0
6 PM - 12 AM	5	23.8	West	4	9.5	Southwest	0	0.0
Unspecified Time	0	0.0				Unknown	0	0.0
Total	21	100.0				Total	42	100.0
WEATHER	# ACC	%	ACC. TYPE	# ACC	%	ACC. TYPE	# ACC	%
Clear	11	52.4	Overtaking	5	23.8	Bicycle	0	0.0
Cloudy	5	23.8	Rear End	5	23.8	Right Turn	0	0.0
Rain	3	14.3	Right Angle	6	28.6	Driveway	0	0.0
Snow	2	9.5	Left Turn	5	23.8	Backing	0	0.0
Sleet	0	0.0	Pedestrian	0	0.0	Parked Veh.	0	0.0
Fog	0	0.0	Fixed Object	0	0.0	Other	0	0.0
Unknown	0	0.0	Head-On	0	0.0	Unknown	0	0.0
			Sideswipe	0	0.0			
Total	21	100.0				Total	21	100.0

PAVEMENT	# ACC	%	ACCIDENT SEVERITY	# ACC	%
Dry	13	0.0	Fatal Injury	0	0.0
Wet	7	0.0	Non - Fatal Injury	3	14.3
Muddy	0	0.0	Property - Damage Only	18	85.7
Snow/Ice	1	0.0	Non - Reportable	0	0.0
Slush	0	0.0			
Other	0	0.0			
Total	21	100	Total	21	100.0
TIME OF YEAR	# ACC	%	TYPE OF VEHICLE	# VEH	%
Winter (Dec - Feb)	7	33.3	Passenger Cars	21	100.00
Spring (Mar - May)	7	33.3	Commercial Vehicles	0	0.0
Summer (Jun - Aug)	2	9.5			
Fall (Sep - Nov)	5	23.8			
Total	21	100.0	Total	21	100.0
DAY OF WEEK	# ACC	%	LIGHT CONDITIONS	# ACC	%
Sunday	2	9.5	Daylight	12	57.1
Monday	2	9.5	Dawn	0	0.0
Tuesday	2	9.5	Dusk	0	0.0
Wednesday	4	19.0	Dark - Road Lighted	9	42.9
Thursday	4	19.0	Dark - Road Unlighted	0	0.0
Friday	1	4.8	Unspecified	0	0.0
Saturday	6	28.6			
Total	21	100.0	Total	21	100.0

SUMMARY OF ACCIDENT SEVERITY BY YEAR	6/1/98 - 5/31/99	6/1/99 - 5/31/00	6/1/00 - 5/31/01
Fatal Accidents	0	0	0
Injury Accidents	1	2	0
Property Damage Accidents	8	7	3
Non-Reportable Accidents	0	0	0
TOTAL ACCIDENTS	9	9	3

AG16955B-35911.00-092001-CYT



TRAFFIC IMPACT STUDY
PRPOSED BUFFALO CONVENTION CENTER
DRAFT EIS

URS

COLLISION DIAGRAM
ELM STREET/ GENESEE STREET
JUNE 1,1998 THROUGH JUNE 1, 2001

FIGURE 1-7

TABLE 1-4 SUMMARY OF ACCIDENT DATA
ELLICOTT STREET AND E. HURON STREET

TIME OF DAY	# ACC	%	DIRECTION	# VEH	%	DIRECTION	# VEH	%
12 AM - 6 AM	0	0.0	North	7	50.0	Northeast	0	0.0
6 AM - 12 PM	3	42.9	South	2	14.3	Northwest	0	0.0
12 PM - 6 PM	4	57.1	East	4	28.6	Southeast	0	0.0
6 PM - 12 AM	0	0.0	West	1	7.1	Southwest	0	0.0
Unspecified Time	0	0.0				Unknown	0	0.0
Total	7	100.0				Total	14	100.0

WEATHER	# ACC	%	ACC. TYPE	# ACC	%	ACC. TYPE	# ACC	%
Clear	4	57.1	Overtaking	3	42.9	Bicycle	0	0.0
Cloudy	2	28.6	Rear End	0	0.0	Right Turn	0	0.0
Rain	1	14.3	Right Angle	4	57.1	Driveway	0	0.0
Snow	0	0.0	Left Turn	0	0.0	Backing	0	0.0
Sleet	0	0.0	Pedestrian	0	0.0	Parked Veh.	0	0.0
Fog	0	0.0	Fixed Object	0	0.0	Other	0	0.0
Unknown	0	0.0	Head-On	0	0.0	Unknown	0	0.0
			Sideswipe	0	0.0			
Total	7	100.0				Total	7	100.0

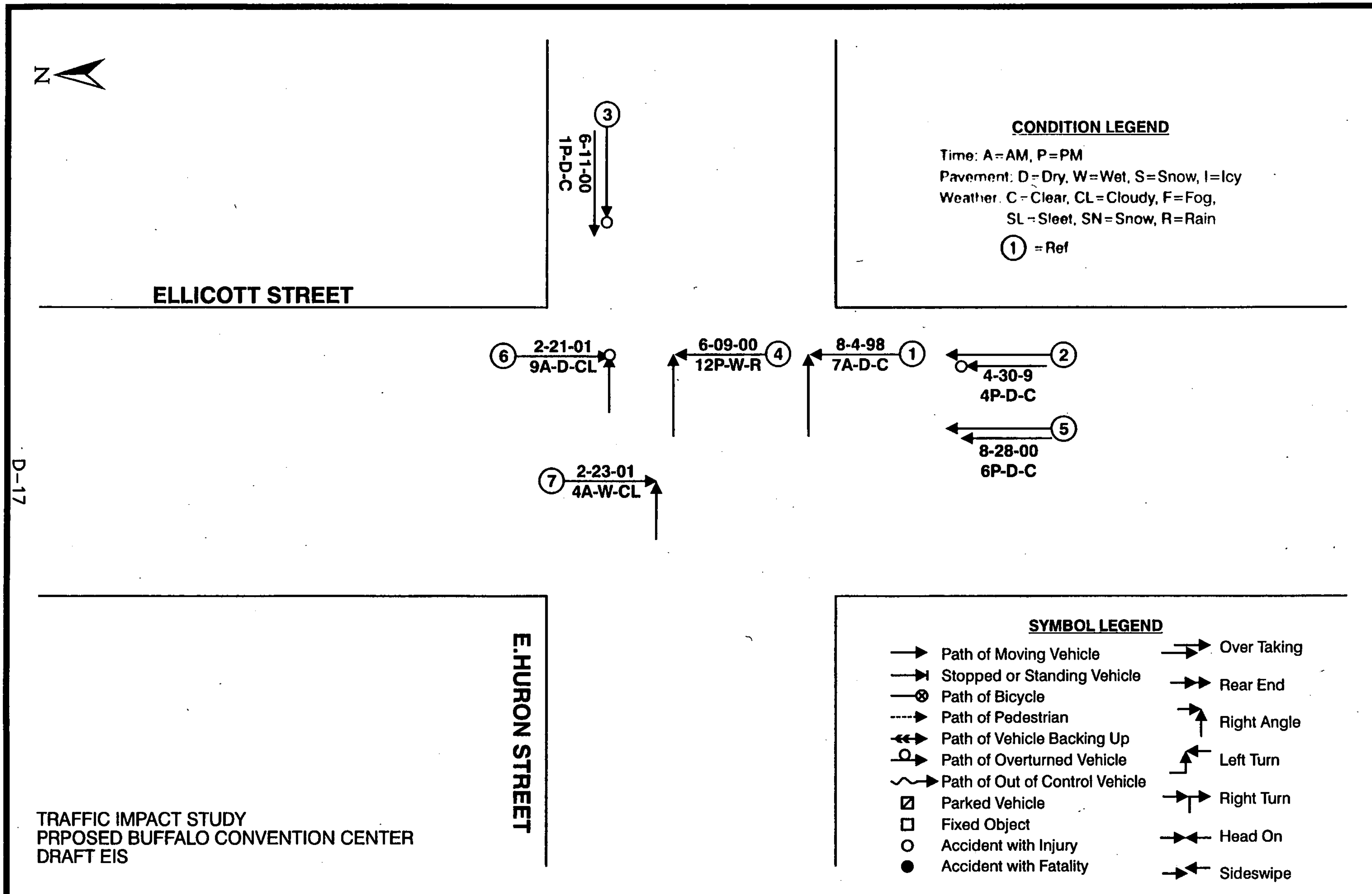
PAVEMENT	# ACC	%	ACCIDENT SEVERITY	# ACC	%
Dry	5	71.4	Fatal Injury	0	0.0
Wet	2	28.6	Non - Fatal Injury	3	42.9
Muddy	0	0.0	Property - Damage Only	4	57.1
Snow/Ice	0	0.0	Non - Reportable	0	0.0
Slush	0	0.0			
Other	0	0.0			
Total	7	100	Total	7	100.0

TIME OF YEAR	# ACC	%	TYPE OF VEHICLE	# VEH	%
Winter (Dec - Feb)	2	28.6	Passenger Cars	7	100.00
Spring (Mar - May)	1	14.3	Commercial Vehicles	0	0.0
Summer (Jun - Aug)	4	57.1			
Fall (Sep - Nov)	0	0.0			
Total	7	100.0	Total	7	100.0

DAY OF WEEK	# ACC	%	LIGHT CONDITIONS	# ACC	%
Sunday	0	0.0	Daylight	7	100.0
Monday	1	14.3	Dawn	0	0.0
Tuesday	0	0.0	Dusk	0	0.0
Wednesday	1	14.3	Dark - Road Lighted	0	0.0
Thursday	1	14.3	Dark - Road Unlighted	0	0.0
Friday	4	57.1	Unspecified	0	0.0
Saturday	0	0.0			
Total	7	100.0	Total	7	100.0

SUMMARY OF ACCIDENT SEVERITY BY YEAR	6/1/98 - 5/31/99	6/1/99 - 5/31/00	6/1/00 - 5/31/01
Fatal Accidents	0	0	0
Injury Accidents	1	0	2
Property Damage Accidents	1	0	3
Non-Reportable Accidents	0	0	0
TOTAL ACCIDENTS	2	0	5

AG16955A-35911.00-092001-CYT



TRAFFIC IMPACT STUDY
PRPOSED BUFFALO CONVENTION CENTER
DRAFT EIS

URS

COLLISION DIAGRAM
ELLICOTT STREET/ E.HURON STREET
JUNE 1,1998 THROUGH JUNE 1, 2001

FIGURE 1-8

TABLE 1-5 SUMMARY OF ACCIDENT DATA
WASHINGTON ST. AND E. CHIPPEWA ST.

TIME OF DAY	# ACC	%	DIRECTION	# VEH	%	DIRECTION	# VEH	%
12 AM - 6 AM	1	14.3	North	0	0.0	Northeast	0	0.0
6 AM - 12 PM	1	14.3	South	7	43.8	Northwest	0	0.0
12 PM - 6 PM	3	42.9	East	2	12.5	Southeast	1	6.3
6 PM - 12 AM	2	28.6	West	5	31.3	Southwest	1	6.3
Unspecified Time	0	0.0				Unknown	0	0.0
Total	7	100.0				Total	16	100.0

WEATHER	# ACC	%	ACC. TYPE	# ACC	%	ACC. TYPE	# ACC	%
Clear	4	57.1	Overtaking	0	0.0	Bicycle	0	0.0
Cloudy	3	42.9	Rear End	0	0.0	Right Turn	1	14.3
Rain	0	0.0	Right Angle	3	42.9	Driveway	0	0.0
Snow	0	0.0	Left Turn	1	14.3	Backing	0	0.0
Sleet	0	0.0	Pedestrian	0	0.0	Parked Veh.	2	28.6
Fog	0	0.0	Fixed Object	0	0.0	Other	0	0.0
Unknown	0	0.0	Head-On	0	0.0	Unknown	0	0.0
			Sideswipe	0	0.0			
Total	7	100.0				Total	7	100.0

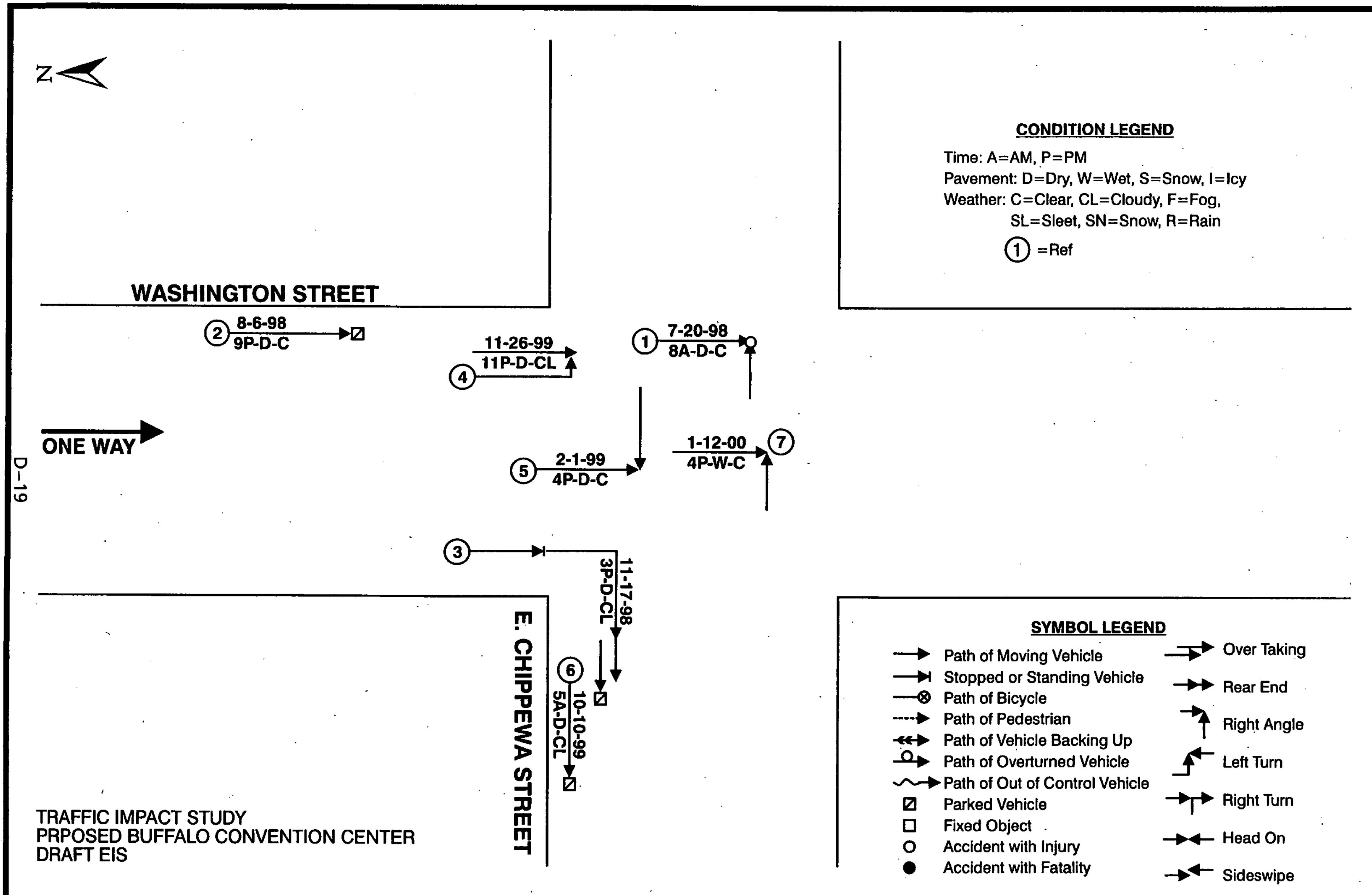
PAVEMENT	# ACC	%	ACCIDENT SEVERITY	# ACC	%
Dry	6	85.7	Fatal Injury	0	0.0
Wet	1	14.3	Non - Fatal Injury	1	14.3
Muddy	0	0.0	Property - Damage Only	6	85.7
Snow/Ice	0	0.0	Non - Reportable	0	0.0
Slush	0	0.0			
Other	0	0.0			
Total	7	100	Total	7	100.0

TIME OF YEAR	# ACC	%	TYPE OF VEHICLE	# VEH	%
Winter (Dec - Feb)	2	28.6	Passenger Cars	7	100.00
Spring (Mar - May)	0	0.0	Commercial Vehicles	0	0.0
Summer (Jun - Aug)	2	28.6			
Fall (Sep - Nov)	3	42.9			
Total	7	100.0	Total	7	100.0

DAY OF WEEK	# ACC	%	LIGHT CONDITIONS	# ACC	%
Sunday	1	14.3	Daylight	4	57.1
Monday	2	28.6	Dawn	0	0.0
Tuesday	1	14.3	Dusk	0	0.0
Wednesday	1	14.3	Dark - Road Lighted	3	42.9
Thursday	1	14.3	Dark - Road Unlighted	0	0.0
Friday	0	0.0	Unspecified	0	0.0
Saturday	1	14.3			
Total	7	100.0	Total	7	100.0

SUMMARY OF ACCIDENT SEVERITY BY YEAR	6/1/98 - 5/31/99	6/1/99 - 5/31/00	6/1/00 - 5/31/01
Fatal Accidents	0	0	1
Injury Accidents	1	0	0
Property Damage Accidents	2	4	0
Non-Reportable Accidents	0	0	0
TOTAL ACCIDENTS	**3**	**4**	**0**

AG16955-35911.00-092001-CYT



TRAFFIC IMPACT STUDY
PRPOSED BUFFALO CONVENTION CENTER
DRAFT EIS

URS

COLLISION DIAGRAM
WASHINGTON STREET/ E.CHIPPEWA STREET
JUNE 1,1998 THROUGH JUNE 1, 2001

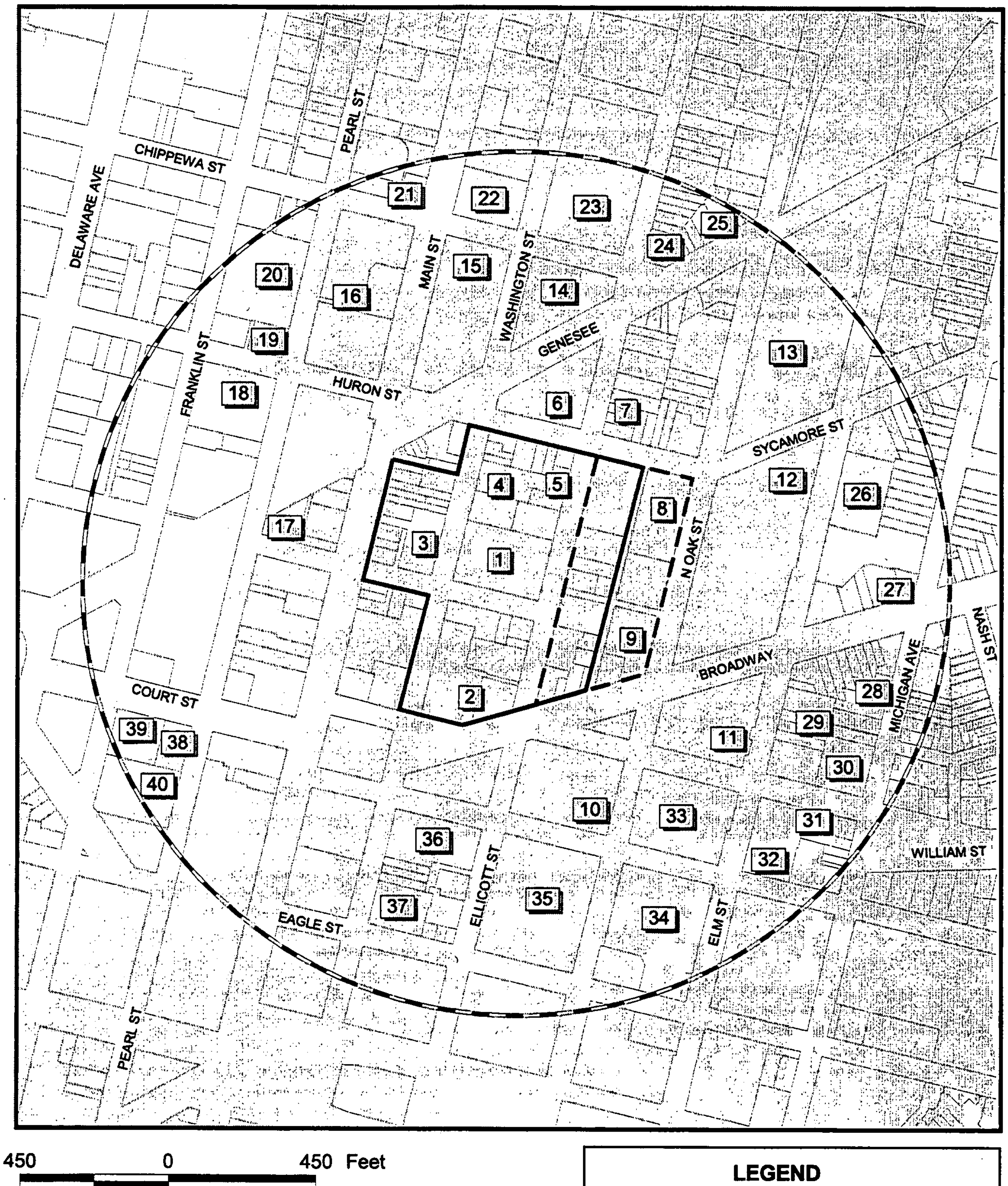
FIGURE 1-9

TABLE 1-6 LEVEL OF SERVICE SUMMARY
PROPOSED MOHAWK SITE

INTERSECTION	APPROACH	EXISTING CONDITIONS		PROJECTED CONDITIONS ETC (2005)		PROJECTED CONDITIONS ETC + 5 (2010)	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK
Washington Street at East Chippewa Street	WASHINGTON STREET						
	Southbound	A	A	B	A	B	A
	EAST CHIPPEWA STREET						
	Eastbound	A	A	A	A	A	A
	Westbound	D	B	F	B	F	C
	INTERSECTION						
	Level of Service	C	A	D	B	E	B
	Average Vehicle Delay (sec)	26.9	9.8	46.6	10.7	66.4	12.9
Ellicott Street at East Huron Street	ELLICOTT STREET						
	Northbound	B	B	B	B	B	B
	Southbound	A	A	A	B	B	B
	EAST HURON STREET						
	Eastbound	B	B	B	B	B	B
	Westbound	A	A	A	A	A	A
	INTERSECTION						
	Level of Service	B	B	B	B	B	B
	Average Vehicle Delay (sec)	10.3	11.3	10.6	11.7	11.0	12.3
North Oak Street at Genesee	NORTH OAK STREET						
	Southbound Through	D	A	E	A	F	B
	Southbound Right	A	A	A	A	A	A
	GENESEE						
	Eastbound	C	C	C	D	C	E
	Westbound	C	C	C	C	C	C
	INTERSECTION						
	Level of Service	C	B	E	B	F	C
	Average Vehicle Delay (sec)	33.1	14.8	58.4	18.7	81.7	24.2
Elm Street at Genesee	ELM STREET						
	Northbound	A	A	A	A	B	B
	GENESEE						
	Eastbound	B	D	B	E	B	F
	Westbound	B	B	B	B	B	B
	INTERSECTION						
	Level of Service	B	B	B	C	B	C
	Average Vehicle Delay (sec)	11.0	17.5	11.5	23.0	12.1	30.0

**TABLE 1-7 IDENTIFICATION OF PARKING FACILITIES
PROPOSED MOHAWK SITE**

ID NO.	TYPE	NUMBER OF SPACES	UTILIZATION RATE (%)	UNUSED SPACES	COMMERCIAL (C) / NON COMMERCIAL (NC)	PUBLIC/ PRIVATE
1	Parking Ramp	609	96	24	C	Public
2	Parking Lot	190	81	36	C	Private
3	Parking Lot	148	82	27	C	Private
4	Parking Lot	141	53	66	C	Private
5	Parking Lot	32	91	3	C	Private
6	Parking Lot	57	51	28	NC	Private
7	Parking Lot	95	100	0	C	Private
8	Parking Lot	70	85	11	NC	Private
9	Parking Lot	40	80	8	NC	Private
10	Parking Lot	15	100	0	NC	Private
11	Parking Lot	32	60	13	NC	Private
12	Parking Lot	130	88	16	NC	Private
13	Parking Lot	250	88	30	NC	Private
14	Parking Lot	101	85	15	C	Private
15	Parking Lot	28	61	11	NC	Private
16	Subsurface Lot	232	85	35	C	Private
17	Parking Lot	60	90	6	C	Private
18	Parking Ramp	1,000	94	60	C	Private
19	Parking Lot	44	100	0	C	Private
20	Parking Ramp	615	91	55	C	Public
21	Parking Lot	15	80	3	NC	Public
22	Parking Lot	10	90	1	NC	Private
23	Parking Lot	385	90	39	C	Private
24	Parking Lot	32	85	5	C	Private
25	Parking Lot	18	30	13	NC	Private
26	Parking Lot	51	98	1	NC	Private
27	Parking Lot	42	83	7	C	Private
28	Parking Lot	15	25	11	NC	Private
29	Parking Lot	15	25	11	NC	Private
30	Parking Lot	20	25	15	NC	Private
31	Parking Lot	164	58	69	NC	Private
32	Parking Lot	8	100	0	NC	Private
33	Parking Ramp	140	85	21	C	Private
34	Parking Lot	44	91	4	NC	Private
35	Parking Lot	375	86	53	C	Public
36	Parking Lot	71	50	36	C	Private
37	Parking Lot	13	77	3	NC	Private
38	Parking Lot	40	92	3	C	Private
39	Parking Lot	65	85	10	NC	Public
40	Parking Ramp	1,196	93	84	C	Public
	SUM:	**6,608**		**830**		



Traffic Impact Study
Proposed Buffalo Convention Center
Draft EIS

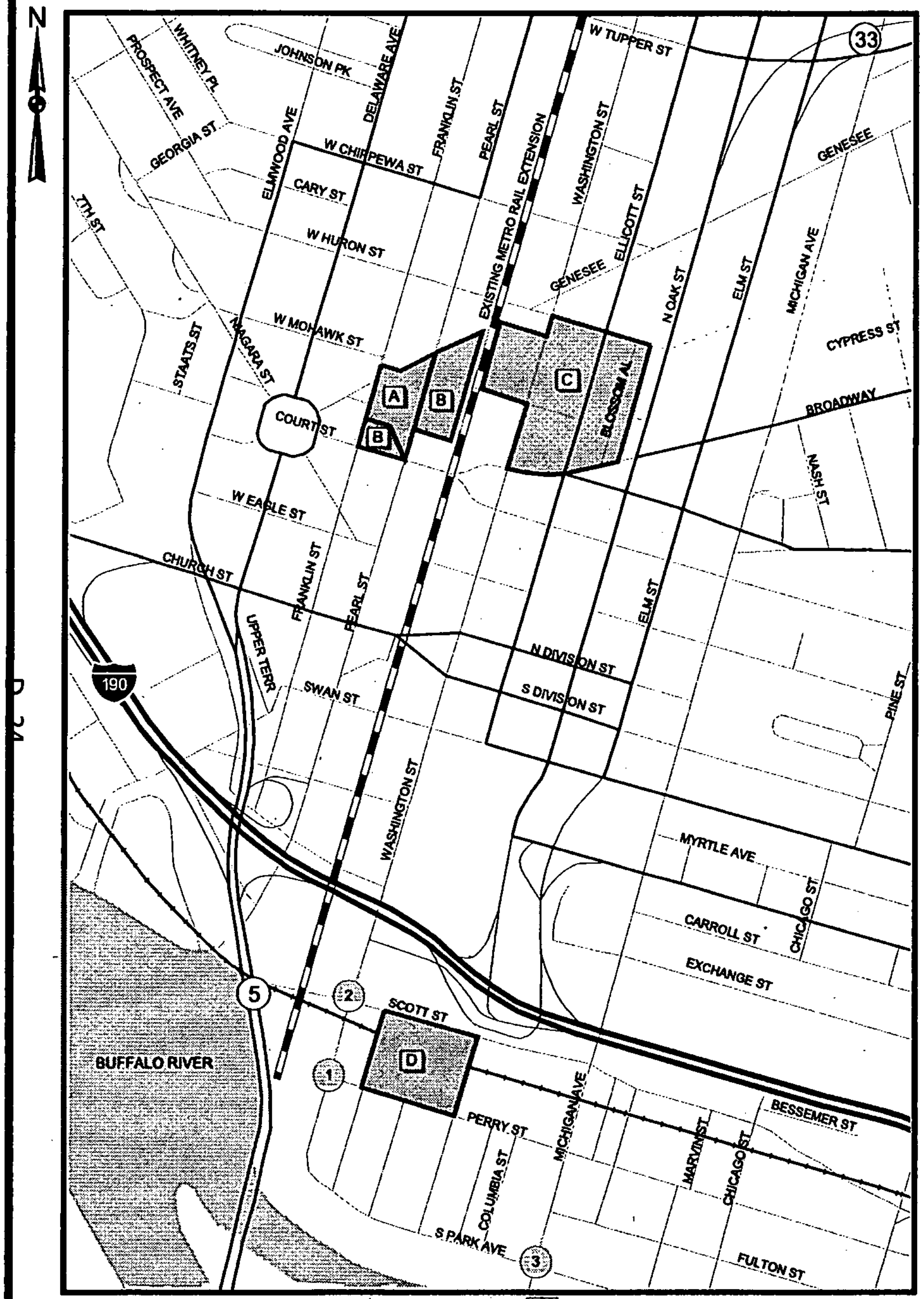
J:\35911.00\db\GIS\traffic.apr Mohawk Parking
10/18/2001

URS

PROPOSED MOHAWK SITE
PARKING IDENTIFICATION

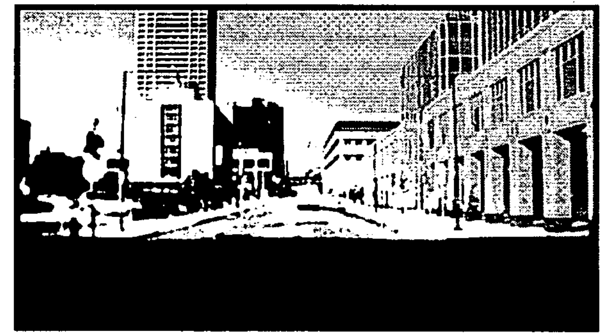
FIGURE 1-10

Section 2.0
Proposed Waterfront Site

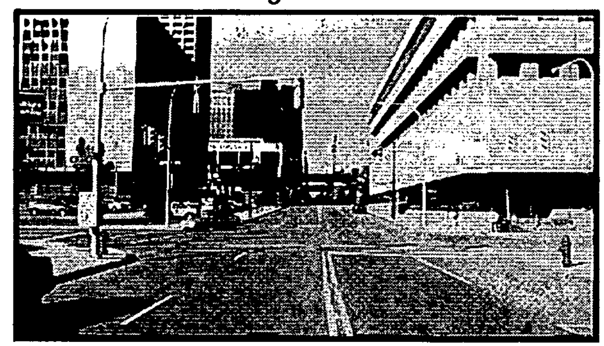


A Existing Convention Center
B Proposed Expansion
C Proposed Mohawk Site
D Proposed Waterfront Site

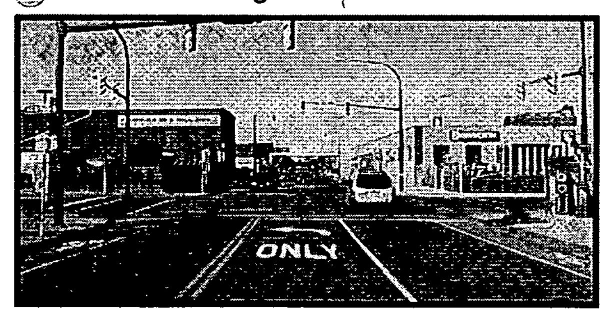
(1) Photo 1: Washington St. and Perry St.



(2) Photo 2: Washington St. and Scott St.



(3) Photo 3: Michigan Ave. and S. Park Ave.



1000 0 1000 Feet

Note: All photographs were taken facing north.

Traffic Imapct Study
Proposed Buffalo Convention Center
Draft EIS

PROPOSED WATERFRONT SITE
INTERSECTION PHOTOGRAPHS

URS

FIGURE 2-1

J:\35911.00\db\GIS\volume.apr Waterfront Site
9/26/2001

Municipality BUFFALO

County ERIE

Intersection WASHINGTON STREET AT PERRY STREET

Area Type CBD

Time 7:00 - 9:45 AM / 2:00 - 5:45 PM

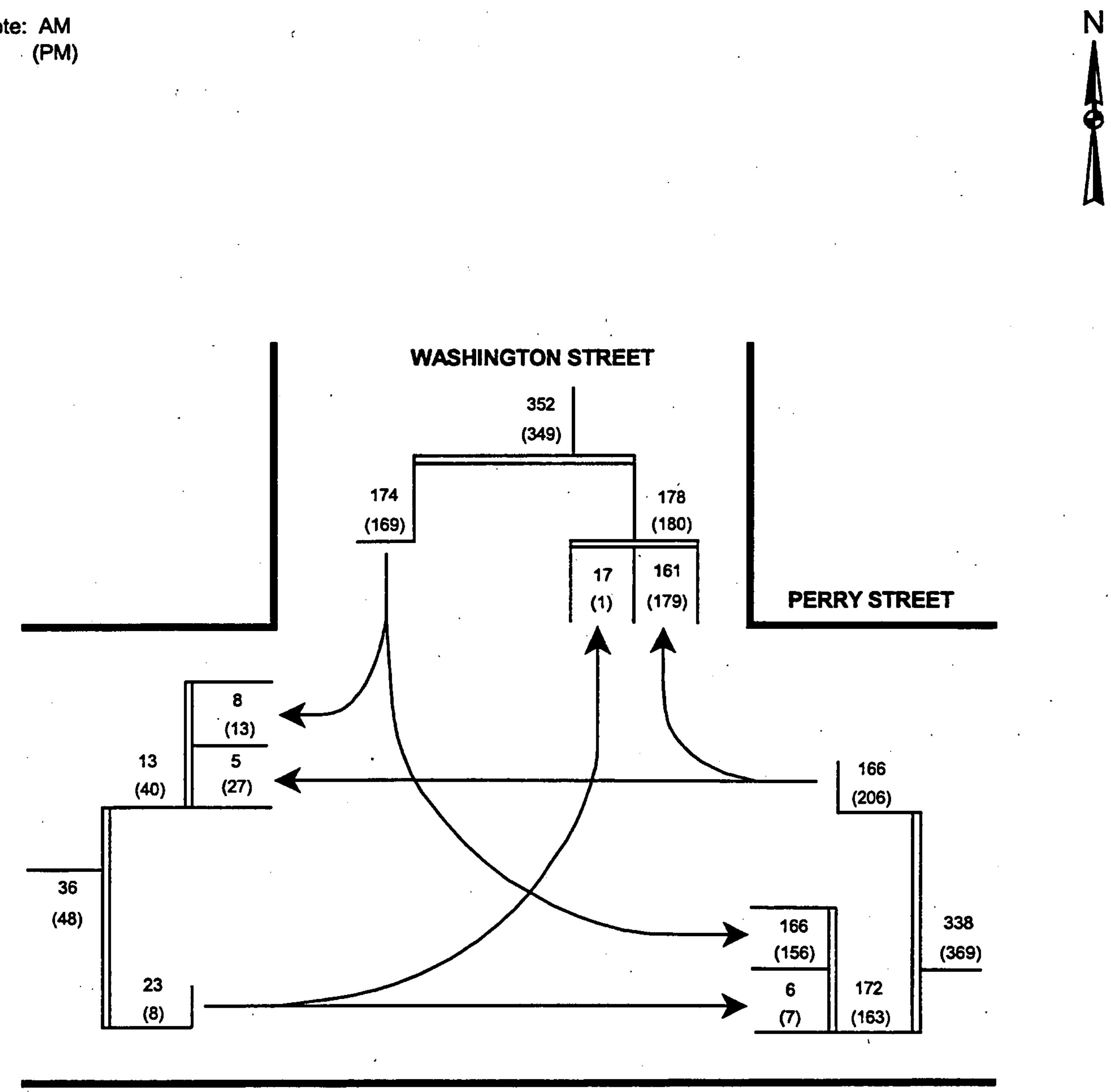
Peak 7:45 - 8:45 AM / 5:00 - 6:00 PM

Date Recorded 09/13/01

FIGURE 2-2

URS

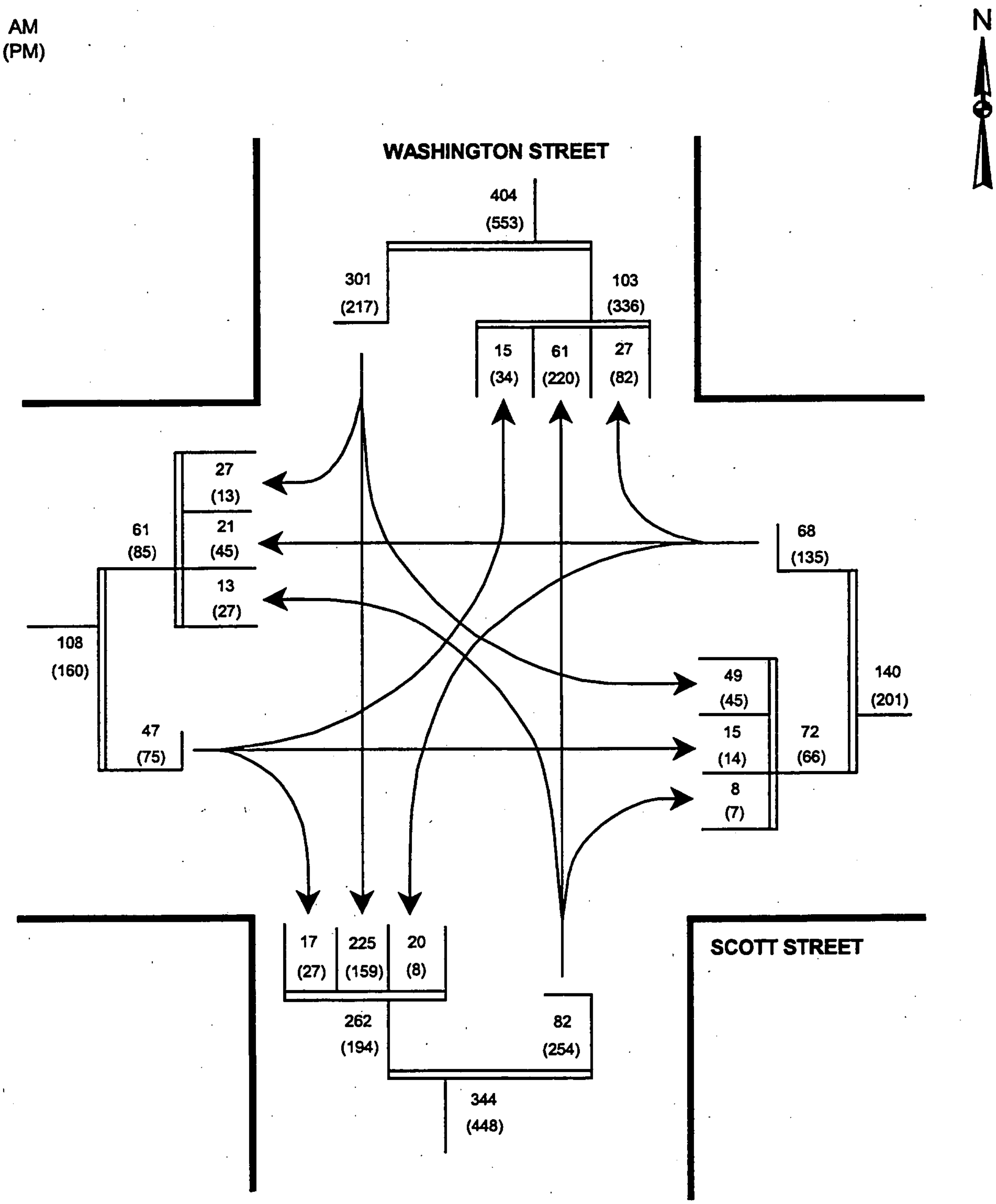
Note: AM
(PM)



Traffic Imapct Study
Proposed Buffalo Convention Center
Draft EIS

Municipality: BUFFALO		County: ERIE	FIGURE 2-3
Intersection: WASHINGTON STREET AT SCOTT STREET		Area Type: CBD	URS
Time: 7:00 - 9:45 AM / 2:00 - 5:45 PM	Peak: 7:45 - 8:45 AM / 4:30 - 5:30 PM	Date Recorded: 08/29/00	

Note: AM
(PM)

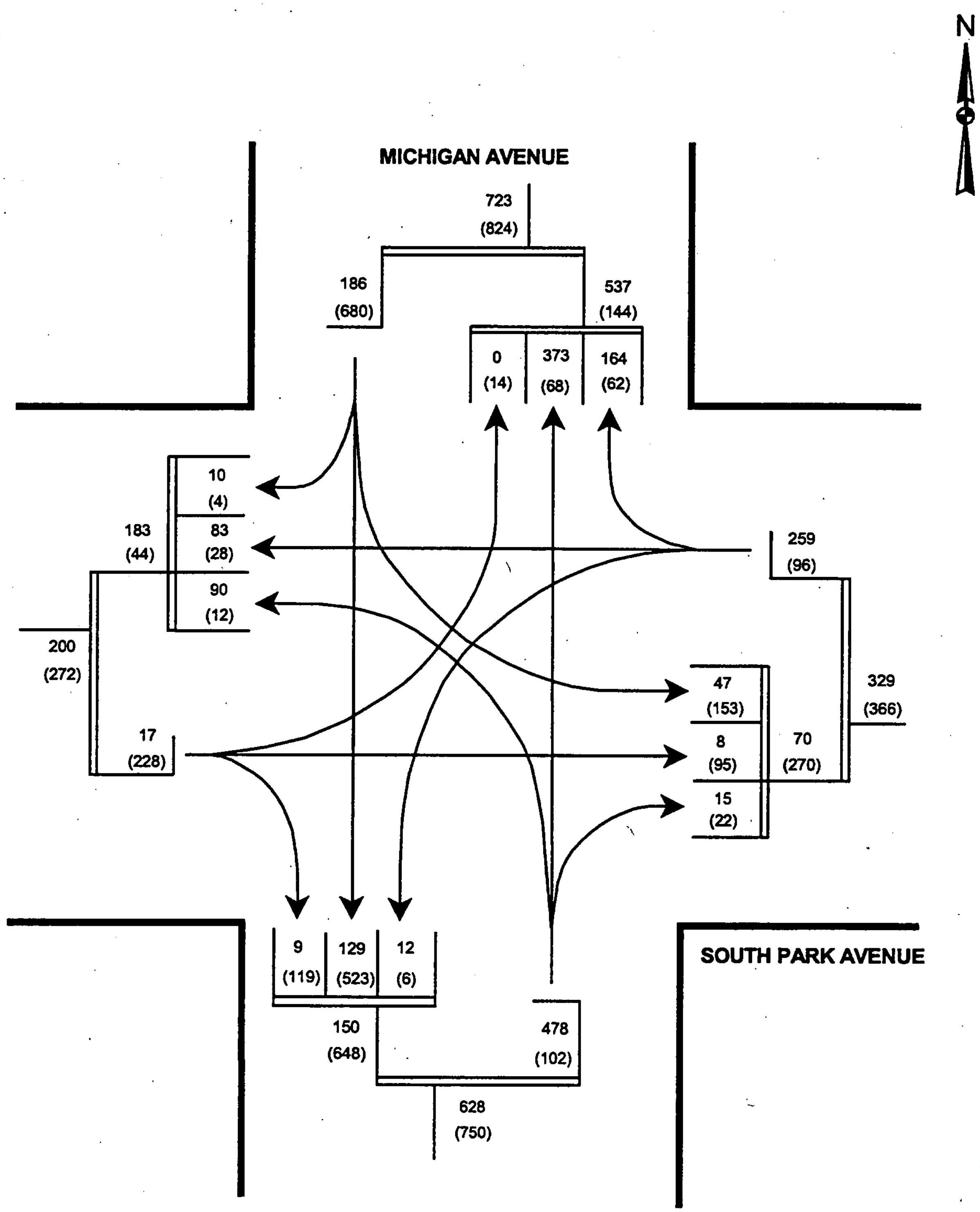


Traffic Imapct Study
Proposed Buffalo Convention Center
Draft EIS

J:\35911.00\db\GIS\volume.apr Washington & Scott

Municipality: BUFFALO	County: ERIE	FIGURE 2-4
Intersection: MICHIGAN AVENUE AT SOUTH PARK AVENUE	Area Type: CBD	URS
Time: 7:00 - 9:45 AM / 2:00 - 5:45 PM; Peak: 7:30 - 8:30 AM / 4:30 - 5:30 PM	Date Recorded: 06/01/98	

Note: AM
(PM)



J:\35911.00\dbIGIS\volume.apr Michigan & S. Park
9/25/2001

Traffic Imapct Study
Proposed Buffalo Convention Center
Draft EIS

TABLE 2-1 SUMMARY OF ACCIDENTS PER INTERSECTION
PROPOSED WATERFRONT SITE

Washington Street and Perry Street

Ref. No.	Date	Day of Week	Time	No. of Vehicles	No. of Injured	No. of Killed	PDO	Accident Type	Vehicle Type	Light	Pavement Conditions	Weather
1	11/16/98	F	—	2	0	0	1	Parked Veh.	PC	Daylight	Dry	Clear
2	11/24/99	W	5:50 PM	2	0	0	1	Backing	PC	Dark Rd Ltd	Dry	Cloudy

Washington Street and Scott Street

Ref. No.	Date	Day of Week	Time	No. of Vehicles	No. of Injured	No. of Killed	PDO	Accident Type	Vehicle Type	Light	Pavement Conditions	Weather
1	10/29/98	R	8:10 AM	2	0	0	1	Right Turn	PC	Daylight	Dry	Clear
2	3/23/99	T	10:15 AM	2	2	0	0	Right Angle	PC	Daylight	Dry	Clear
3	11/9/99	T	8:00 PM	2	0	0	1	Overtaking	PC	Dark Rd Ltd	Dry	Clear
4	4/27/00	R	7:40 AM	2	0	0	1	Right Angle	PC	Daylight	Dry	Cloudy
5	6/6/00	T	1:15 PM	1	0	0	1	Fixed Object	CV	Daylight	Dry	Cloudy
6	7/25/00	T	10:30 PM	1	1	0	0	Pedestrian	PC	Dark Rd Ltd	Dry	Clear
7	1/1/01	M	1:45 PM	2	1	0	0	Right Angle	PC	Daylight	Wet	Cloudy
8	2/14/01	W	10:00 AM	2	0	0	1	Right Angle	PC	Daylight	Dry	Rain

Michigan Avenue and South Park Avenue

Ref. No.	Date	Day of Week	Time	No. of Vehicles	No. of Injured	No. of Killed	PDO	Accident Type	Vehicle Type	Light	Pavement Conditions	Weather
1	9/20/98	Su	5:38 PM	2	1	0	0	Right Angle	PC	Daylight	Dry	Cloudy
2	11/30/98	M	7:50 AM	2	0	0	1	Right Turn	PC	Daylight	Dry	Clear
3	3/12/01	M	12:15 PM	2	0	1	0	Right Angle	PC	Daylight	Dry	Clear
4	5/9/01	W	3:00 PM	2	1	0	0	Right Angle	PC	Daylight	Dry	Clear

TABLE 2-2 SUMMARY OF ACCIDENT DATA
WASHINGTON ST. AND PERRY ST.

TIME OF DAY	# ACC	%	DIRECTION	# VEH	%	DIRECTION	# VEH	%
12 AM - 6 AM	0	0.0	North	4	100.0	Northeast	0	0.0
6 AM - 12 PM	0	0.0	South	0	0.0	Northwest	0	0.0
12 PM - 6 PM	1	50.0	East	0	0.0	Southeast	0	0.0
6 PM - 12 AM	0	0.0	West	0	0.0	Southwest	0	0.0
Unspecified Time	1	50.0				Unknown	0	0.0
Total	2	100.0				Total	4	100.0
WEATHER	# ACC	%	ACC. TYPE	# ACC	%	ACC. TYPE	# ACC	%
Clear	1	50.0	Overtaking	0	0.0	Bicycle	0	0.0
Cloudy	1	50.0	Rear End	0	0.0	Right Turn	0	0.0
Rain	0	0.0	Right Angle	0	0.0	Driveway	0	0.0
Snow	0	0.0	Left Turn	0	0.0	Backing	1	50.0
Sleet	0	0.0	Pedestrian	0	0.0	Parked Veh.	1	50.0
Fog	0	0.0	Fixed Object	0	0.0	Other	0	0.0
Unknown	0	0.0	Head-On	0	0.0	Unknown	0	0.0
			Sideswipe	0	0.0			
Total	2	100.0				Total	2	100.0

PAVEMENT	# ACC	%	ACCIDENT SEVERITY	# ACC	%
Dry	2	100.0	Fatal Injury	0	0.0
Wet	0	0.0	Non - Fatal Injury	0	0.0
Muddy	0	0.0	Property - Damage Only	2	100.0
Snow/Ice	0	0.0	Non - Reportable	0	0.0
Slush	0	0.0			
Other	0	0.0			
Total	2	100	Total	2	100.0
TIME OF YEAR	# ACC	%	TYPE OF VEHICLE	# VEH	%
Winter (Dec - Feb)	0	0.0	Passenger Cars	2	100.00
Spring (Mar - May)	0	0.0	Commercial Vehicles	0	0.0
Summer (Jun - Aug)	0	0.0			
Fall (Sep - Nov)	2	100.0			
Total	2	100.0	Total	2	100.0
DAY OF WEEK	# ACC	%	LIGHT CONDITIONS	# ACC	%
Sunday	0	0.0	Daylight	1	50.0
Monday	0	0.0	Dawn	0	0.0
Tuesday	0	0.0	Dusk	0	0.0
Wednesday	1	50.0	Dark - Road Lighted	1	50.0
Thursday	0	0.0	Dark - Road Unlighted	0	0.0
Friday	1	50.0	Unspecified	0	0.0
Saturday	0	0.0			
Total	2	100.0	Total	2	100.0

SUMMARY OF ACCIDENT SEVERITY BY YEAR	6/1/98 - 5/31/99	6/1/99 - 5/31/00	6/1/00 - 5/31/01
Fatal Accidents	0	0	0
Injury Accidents	0	0	0
Property Damage Accidents	1	1	0
Non-Reportable Accidents	0	0	0
TOTAL ACCIDENTS	1	1	0

TABLE 2-3 SUMMARY OF ACCIDENT DATA
WASHINGTON ST. AND SCOTT ST.

TIME OF DAY	# ACC	%	DIRECTION	# VEH	%	DIRECTION	# VEH	%
12 AM - 6 AM	0	0.0	North	1	7.1	Northeast	0	0.0
6 AM - 12 PM	4	50.0	South	6	42.9	Northwest	0	0.0
12 PM - 6 PM	2	25.0	East	3	21.4	Southeast	2	14.3
6 PM - 12 AM	2	25.0	West	1	7.1	Southwest	0	0.0
Unspecified Time	0	0.0				Unknown	1	7.1
Total	8	100.0				Total	14	100.0

WEATHER	# ACC	%	ACC. TYPE	# ACC	%	ACC. TYPE	# ACC	%
Clear	4	50.0	Overtaking	1	12.5	Bicycle	0	0.0
Cloudy	3	37.5	Rear End	0	0.0	Right Turn	1	12.5
Rain	1	12.5	Right Angle	4	50.0	Driveway	0	0.0
Snow	0	0.0	Left Turn	0	0.0	Backing	0	0.0
Sleet	0	0.0	Pedestrian	1	12.5	Parked Veh.	0	0.0
Fog	0	0.0	Fixed Object	1	12.5	Other	0	0.0
Unknown	0	0.0	Head-On	0	0.0	Unknown	0	0.0
			Sideswipe	0	0.0			
Total	8	100.0				Total	8	100.0

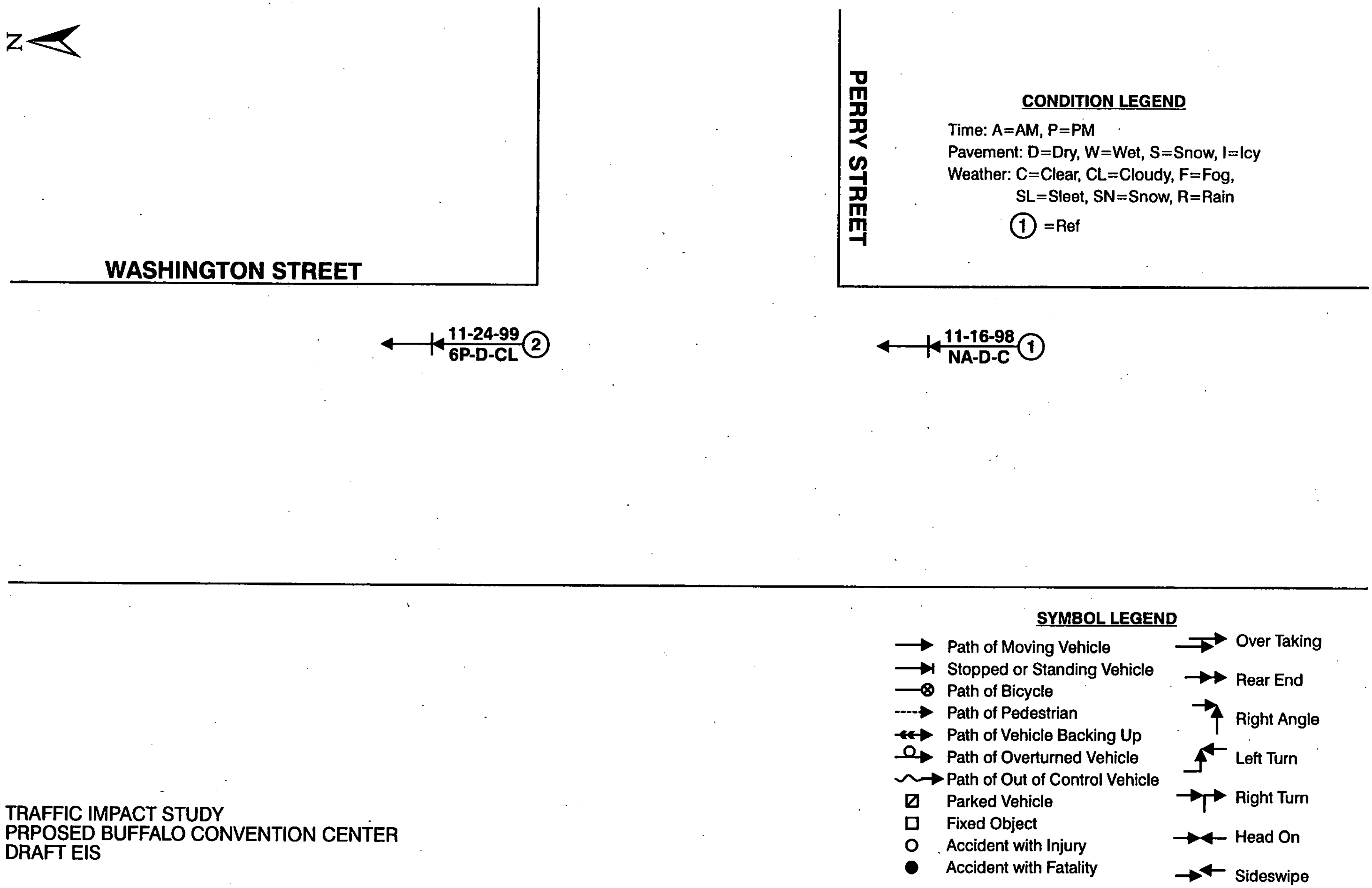
PAVEMENT	# ACC	%	ACCIDENT SEVERITY	# ACC	%
Dry	7	87.5	Fatal Injury	0	0.0
Wet	1	12.5	Non - Fatal Injury	4	50.0
Muddy	0	0.0	Property - Damage Only	4	50.0
Snow/Ice	0	0.0	Non - Reportable	0	0.0
Slush	0	0.0			
Other	0	0.0			
Total	8	100.0	Total	8	100.0

TIME OF YEAR	# ACC	%	TYPE OF VEHICLE	# VEH	%
Winter (Dec - Feb)	2	25.0	Passenger Cars	7	87.50
Spring (Mar - May)	2	25.0	Commercial Vehicles	1	12.50
Summer (Jun - Aug)	2	25.0			
Fall (Sep - Nov)	2	25.0			
Total	8	100.0	Total	8	100.0

DAY OF WEEK	# ACC	%	LIGHT CONDITIONS	# ACC	%
Sunday	0	0.0	Daylight	6	75.0
Monday	1	12.5	Dawn	0	0.0
Tuesday	4	50.0	Dusk	0	0.0
Wednesday	1	12.5	Dark - Road Lighted	2	25.0
Thursday	2	25.0	Dark - Road Unlighted	0	0.0
Friday	0	0.0	Unspecified	0	0.0
Saturday	0	0.0			
Total	8	100.0	Total	8	100.0

SUMMARY OF ACCIDENT SEVERITY BY YEAR	6/1/98 - 5/31/99	6/1/99 - 5/31/00	6/1/00 - 5/31/01
Fatal Accidents	0	0	0
Injury Accidents	1	0	2
Property Damage Accidents	1	2	2
Non-Reportable Accidents	0	0	0
TOTAL ACCIDENTS	2	2	4

AG16955I-35911.00-092001-CYT



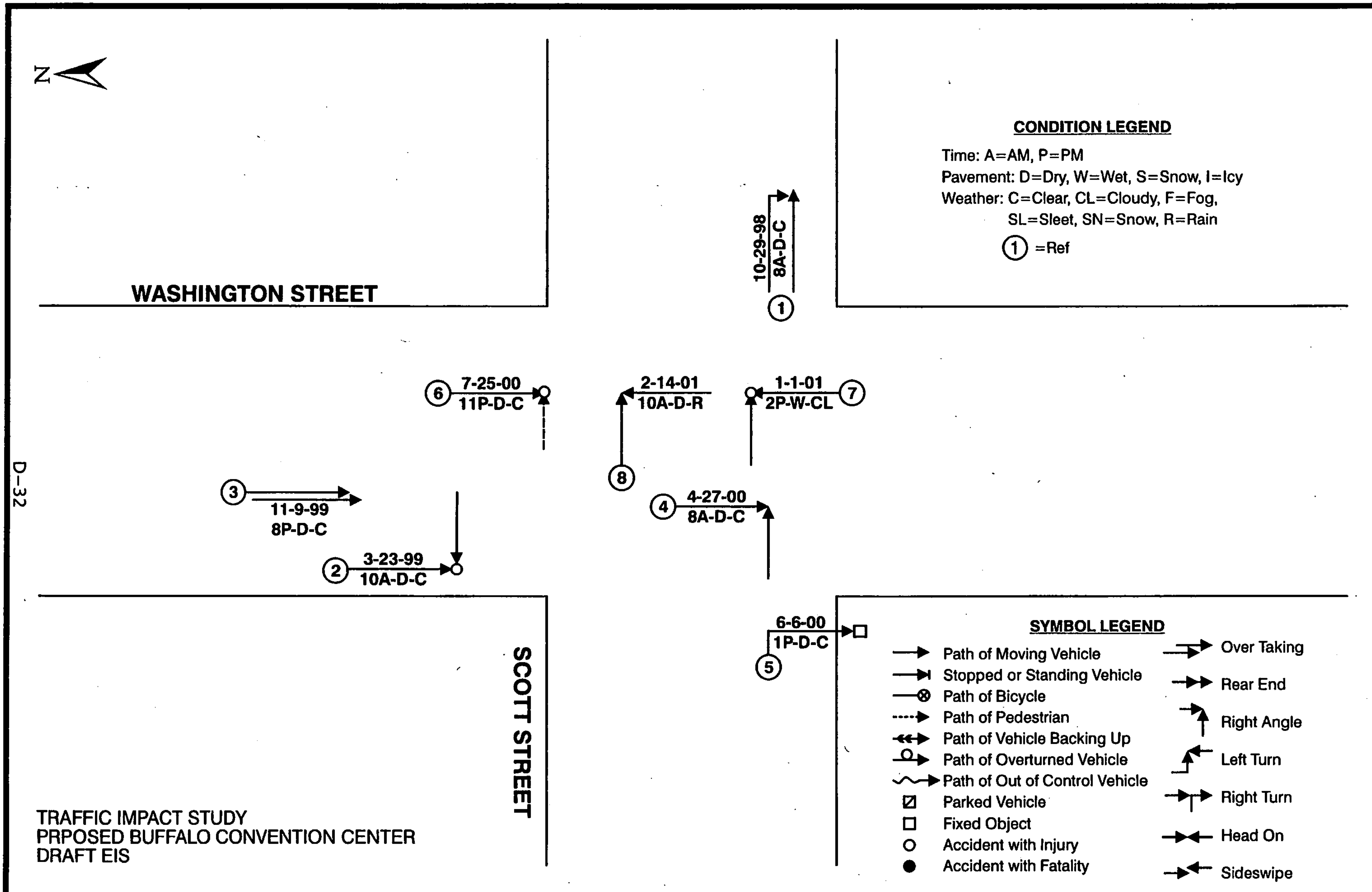
TRAFFIC IMPACT STUDY
PRPOSED BUFFALO CONVENTION CENTER
DRAFT EIS

URS

COLLISION DIAGRAM
WASHINGTON STREET/ PERRY STREET
JUNE 1,1998 THROUGH JUNE 1, 2001

FIGURE 2-5

AG16955H-35911.00-092001-CYT



TRAFFIC IMPACT STUDY
PRPOSED BUFFALO CONVENTION CENTER
DRAFT EIS

URS

COLLISION DIAGRAM
WASHINGTON STREET/ SCOTT STREET
JUNE 1,1998 THROUGH JUNE 1, 2001

FIGURE 2-6

**TABLE 2-4 SUMMARY OF ACCIDENT DATA
MICHIGAN AVENUE AND S. PARK AVENUE**

TIME OF DAY	# ACC	%	DIRECTION	# VEH	%	DIRECTION	# VEH	%
12 AM - 6 AM	0	0.0	North	3	37.5	Northeast	0	0.0
6 AM - 12 PM	1	25.0	South	1	12.5	Northwest	1	12.5
12 PM - 6 PM	2	50.0	East	2	25.0	Southeast	0	0.0
6 PM - 12 AM	1	25.0	West	1	12.5	Southwest	0	0.0
Unspecified Time	0	0.0				Unknown	0	0.0
Total	4	100.0				Total	8	100.0

WEATHER	# ACC	%	ACC TYPE	# ACC	%	ACC TYPE	# ACC	%
Clear	3	75.0	Overtaking	0	0.0	Bicycle	0	0.0
Cloudy	1	25.0	Rear End	0	0.0	Right Turn	1	25.0
Rain	0	0.0	Right Angle	3	75.0	Driveway	0	0.0
Snow	0	0.0	Left Turn	0	0.0	Backing	0	0.0
Sleet	0	0.0	Pedestrian	0	0.0	Parked Veh.	0	0.0
Fog	0	0.0	Fixed Object	0	0.0	Other	0	0.0
Unknown	0	0.0	Head-On	0	0.0	Unknown	0	0.0
			Sideswipe	0	0.0			
Total	4	100.0				Total	4	100.0

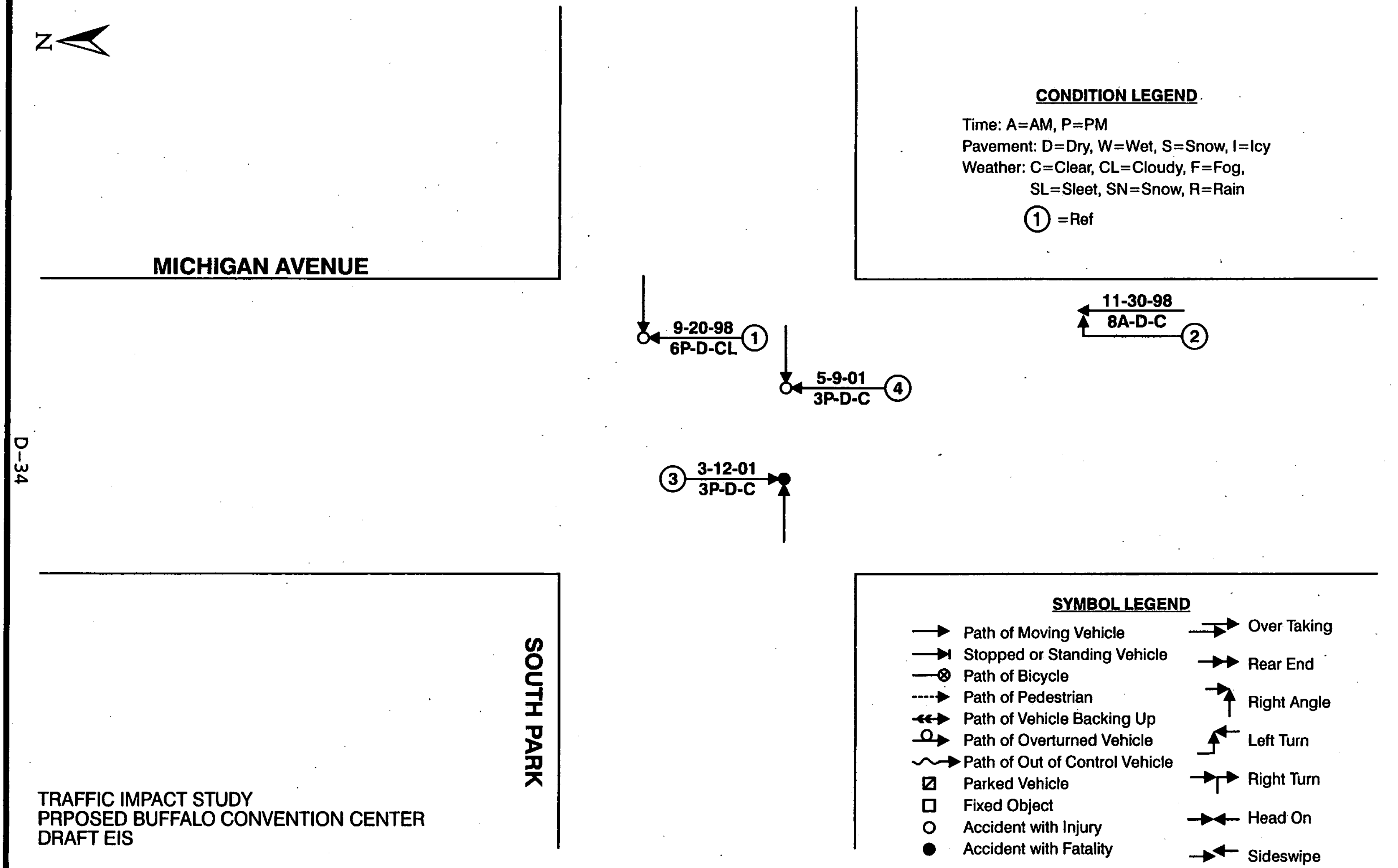
PAVEMENT	# ACC	%	ACCIDENT SEVERITY	# ACC	%
Dry	4	100.0	Fatal Injury	2	50.0
Wet	0	0.0	Non - Fatal Injury	1	25.0
Muddy	0	0.0	Property - Damage Only	1	25.0
Snow/Ice	0	0.0	Non - Reportable	0	0.0
Slush	0	0.0			
Other	0	0.0			
Total	4	100	Total	4	100.0

TIME OF YEAR	# ACC	%	TYPE OF VEHICLE	# VEH	%
Winter (Dec - Feb)	0	0.0	Passenger Cars	4	100.00
Spring (Mar - May)	1	25.0	Commercial Vehicles	0	0.00
Summer (Jun - Aug)	1	25.0			
Fall (Sep - Nov)	2	50.0			
Total	4	100.0	Total	4	100.0

DAY OF WEEK	# ACC	%	LIGHT CONDITIONS	# ACC	%
Sunday	1	25.0	Daylight	4	100.0
Monday	2	50.0	Dawn	0	0.0
Tuesday	0	0.0	Dusk	0	0.0
Wednesday	1	25.0	Dark - Road Lighted	0	0.0
Thursday	0	0.0	Dark - Road Unlighted	0	0.0
Friday	0	0.0	Unspecified	0	0.0
Saturday	0	0.0			
Total	4	100.0	Total	4	100.0

SUMMARY OF ACCIDENT SEVERITY BY YEAR	6/1/98 - 5/31/99	6/1/99 - 5/31/00	6/1/00 - 5/31/01
Fatal Accidents	0	0	1
Injury Accidents	1	0	1
Property Damage Accidents	1	0	0
Non-Reportable Accidents	0	0	0
TOTAL ACCIDENTS	2	0	2

AG16955G-35911.00-092001-CYT



TRAFFIC IMPACT STUDY
PRPOSED BUFFALO CONVENTION CENTER
DRAFT EIS

URS

COLLISION DIAGRAM
MICHIGAN AVENUE/ S.PARK
JUNE 1,1998 THROUGH JUNE 1, 2001

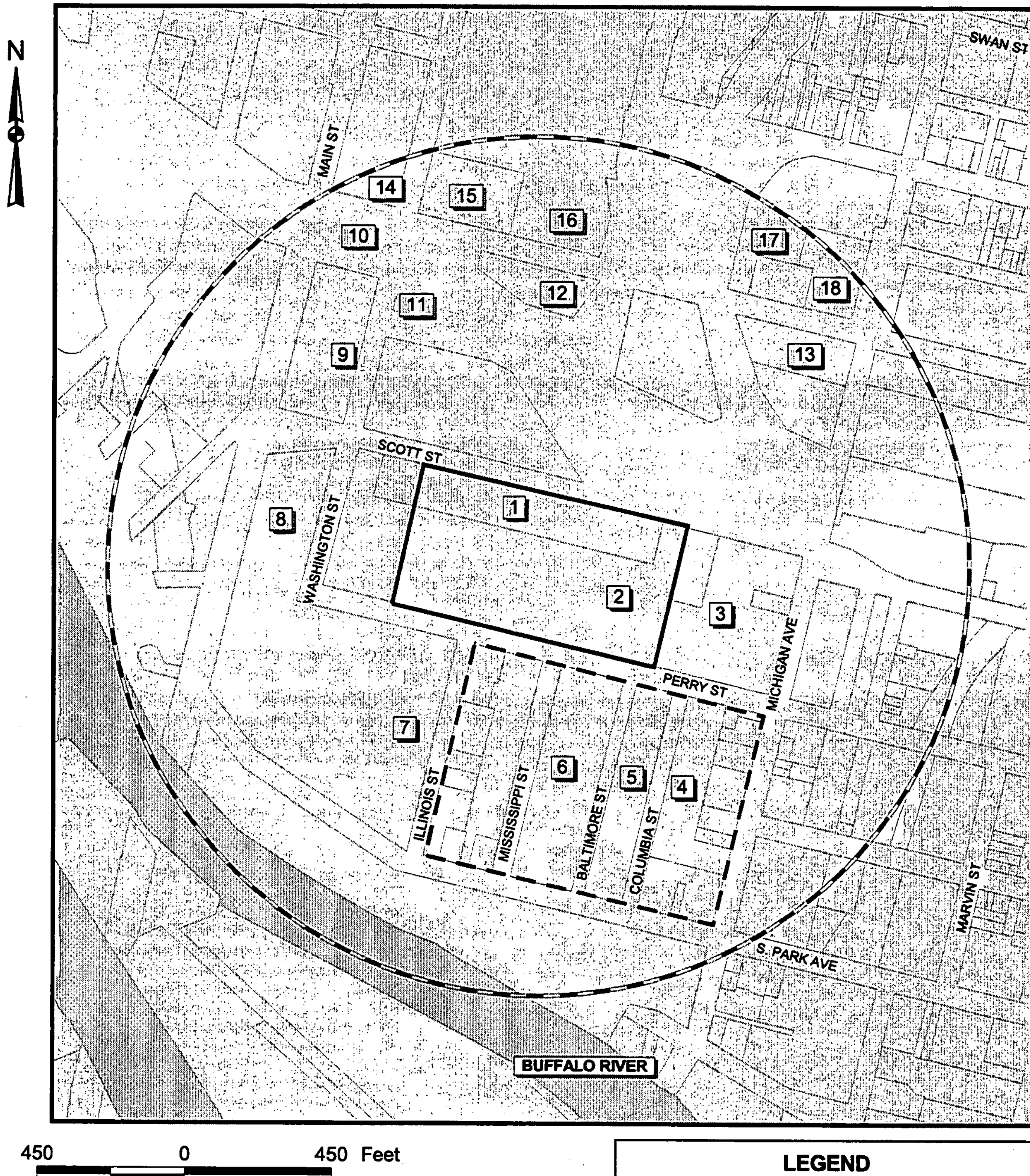
FIGURE 2-7

TABLE 2-5 LEVEL OF SERVICE SUMMARY
PROPOSED WATERFRONT SITE

INTERSECTION	APPROACH	EXISTING CONDITIONS		PROJECTED CONDITIONS ETC (2005)		PROJECTED CONDITIONS ETC + 5 (2010)	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK
Washington Street at Scott Street	WASHINGTON STREET						
	Northbound	A	A	A	A	A	A
	Southbound	A	A	A	A	A	A
	SCOTT STREET						
	Eastbound	A	A	A	A	A	A
	Westbound	A	A	A	A	A	A
	INTERSECTION						
	Level of Service	A	A	A	A	A	A
	Average Vehicle Delay (sec)	3.8	4.0	3.9	4.1	4.0	4.3
Washington Street at Perry Street	WASHINGTON STREET						
	Southbound	A	B	B	B	B	B
	PERRY STREET						
	Eastbound	A	A	A	A	A	A
	Westbound	A	B	A	B	A	B
	INTERSECTION						
	Level of Service	A	B	A	B	A	B
	Average Vehicle Delay (sec)	8.9	10.9	9.2	12.0	9.6	13.2
Michigan Avenue at South Park Avenue	MICHIGAN AVENUE						
	Northbound	A	A	A	A	B	A
	Southbound	A	A	A	B	A	B
	SOUTH PARK AVENUE						
	Eastbound	A	A	A	A	A	A
	Westbound	A	A	A	A	A	A
	INTERSECTION						
	Level of Service	A	A	A	B	A	B
	Average Vehicle Delay (sec)	8.5	9.1	8.9	10.2	9.4	11.7

TABLE 2-6 IDENTIFICATION OF PARKING FACILITIES PROPOSED WATERFRONT SITE

ID NO.	TYPE	NUMBER OF SPACES	UTILIZATION RATE (%)	UNUSED SPACES	COMMERCIAL (C) / NON COMMERCIAL (NC)	PUBLIC/ PRIVATE
1	Parking Lot	175	60	70	NC	Private
2	Parking Lot	680	49	347	NC	Private
3	Parking Lot	507	90	51	C	Private
4	Parking Lot	265	85	40	C	Private
5	Parking Lot	271	100	0	C	Public
6	Parking Lot	30	50	15	C	Public
7	Parking Ramp	1,100	75	275	C	Private
8	Parking Lot	320	85	48	C	Private
9	Parking Lot	100	92	8	NC	Public
10	Parking Lot	55	87	7	NC	Private
11	Parking Lot	125	97	4	C	Public
12	Parking Lot	45	27	33	C	Public
13	Parking Lot	120	0	120	NC	Private
14	Subsurface Lot	457	85	69	C	Public
15	Parking Ramp	860	93	60	C	Private
16	Parking Lot	125	103	0	NC	Public
17	Parking Lot	110	95	6	NC	Private
18	Parking Lot	45	80	9	NC	Private
SUM:		**5,390**		**1,160**		



LEGEND

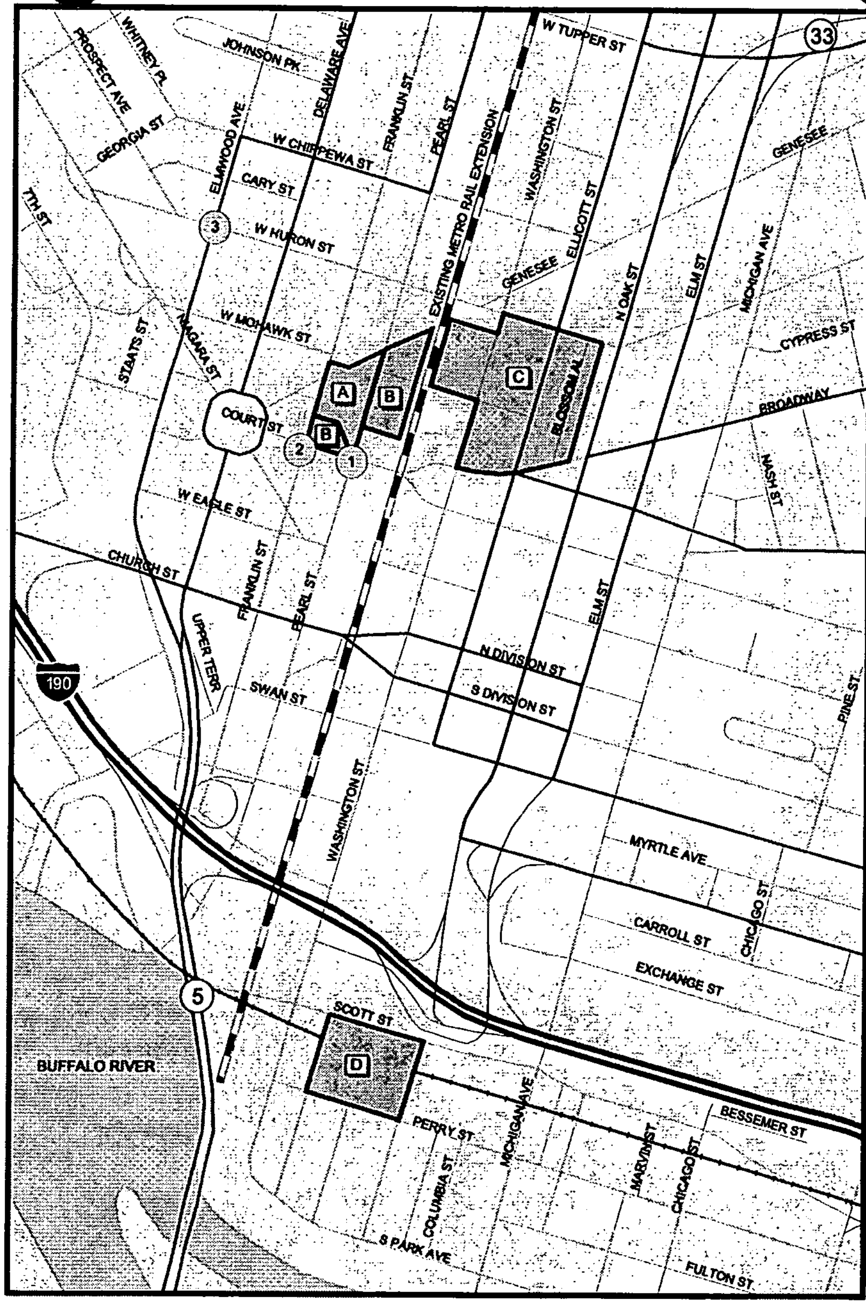
- Proposed Waterfront Site
- Parking Study Corridor (0.25 Miles)
- Potential Parking Identification
- 1 Existing Parking Facility

Traffic Impact Study
Proposed Buffalo Convention Center
Draft EIS

J:\35911.00\db\GIS\traffic.apr Waterfront Parking
10/18/2001

URS	PROPOSED WATERFRONT SITE PARKING IDENTIFICATION	FIGURE 2-8

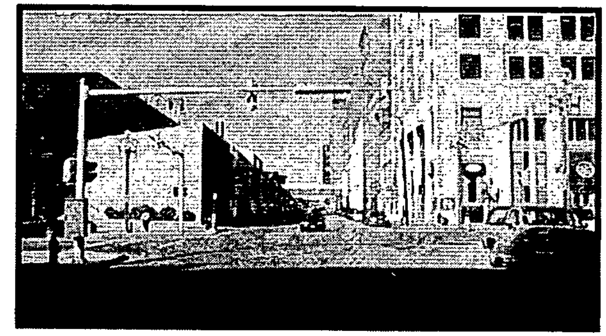
Section 3.0
Expansion of Existing Facility



A Existing Convention Center
B Proposed Expansion
C Proposed Mohawk Site
D Proposed Waterfront Site

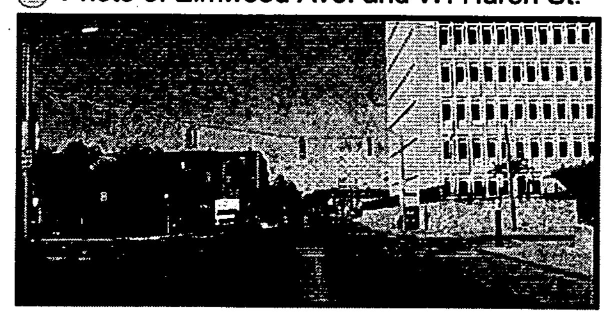
Traffic Imapct Study
Proposed Buffalo Convention Center
Draft EIS

(1) Photo 1: Pearl Street and Court Street



(2) Photo 2: Franklin Street and Court Street

(3) Photo 3: Elmwood Ave. and W. Huron St.



1000 0 1000 Feet

Note: All photographs were taken facing north.

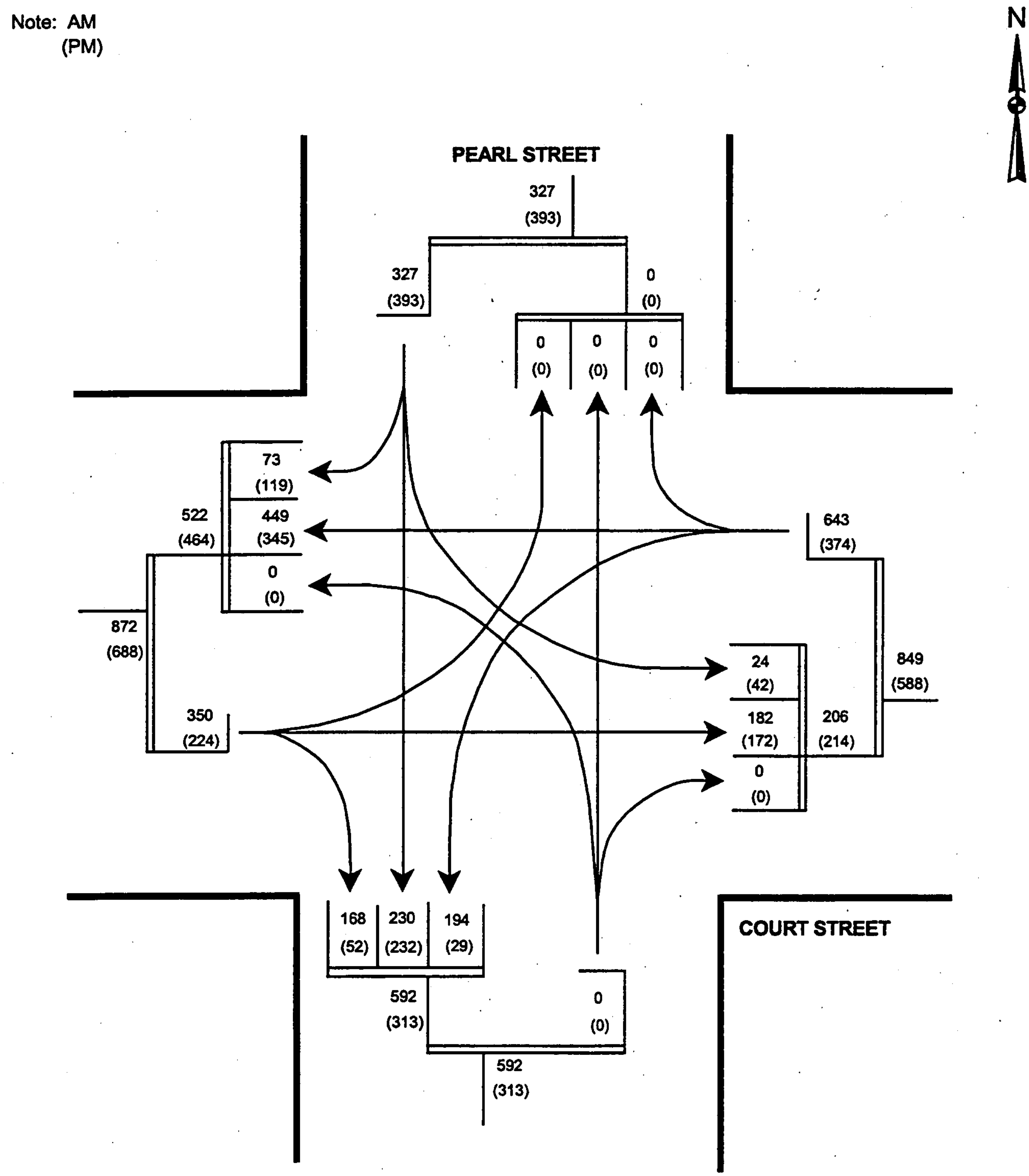
EXPANSION OF EXISTING FACILITY
INTERSECTION PHOTOGRAPHS

URS

FIGURE 3-1

J:\35911.00\db\GIS\volume.apr Existing Site
9/26/2001

Municipality BUFFALO	County ERIE	FIGURE 3-2
Intersection PEARL STREET AT COURT STREET	Area Type CBD	URS
Time 7:00 - 9:45 AM / 2:00 - 5:45 PM; Peak 8:15 - 9:15 AM / 4:30 - 5:30 PM	Date Recorded 07/25/01	

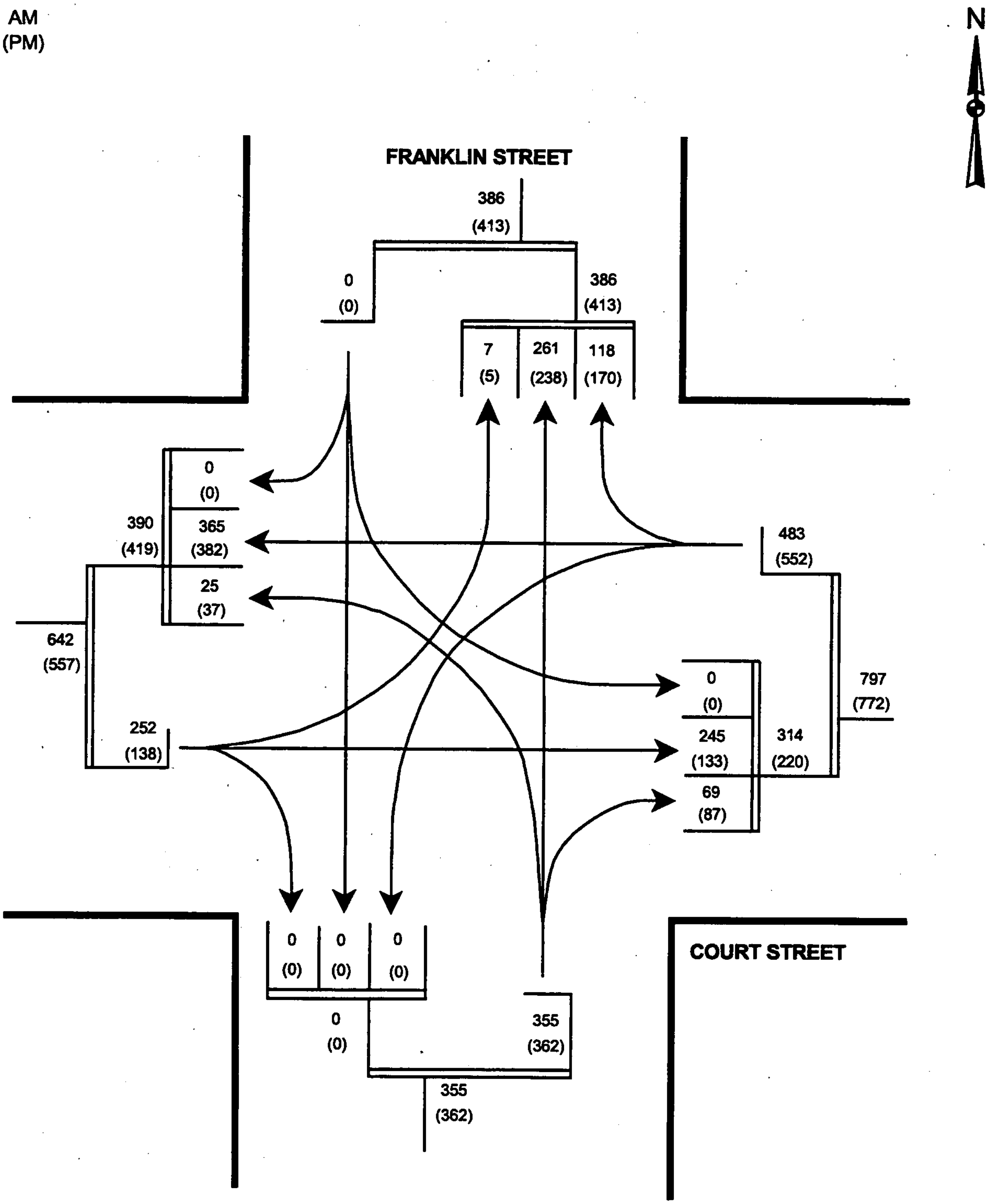


Pearl & Court

Traffic Imapct Study
Proposed Buffalo Convention Center
Draft EIS

Municipality BUFFALO	County ERIE	FIGURE 3-3
Intersection FRANKLIN STREET AT COURT STREET	Area Type CBD	
Time 7:00 - 9:45 AM / 2:00 - 5:45 PM; Peak 8:00 - 9:00 AM / 4:15 - 5:15 PM	Date Recorded 07/25/01	URS

Note: AM
(PM)



Traffic Imapct Study
Proposed Buffalo Convention Center
Draft EIS

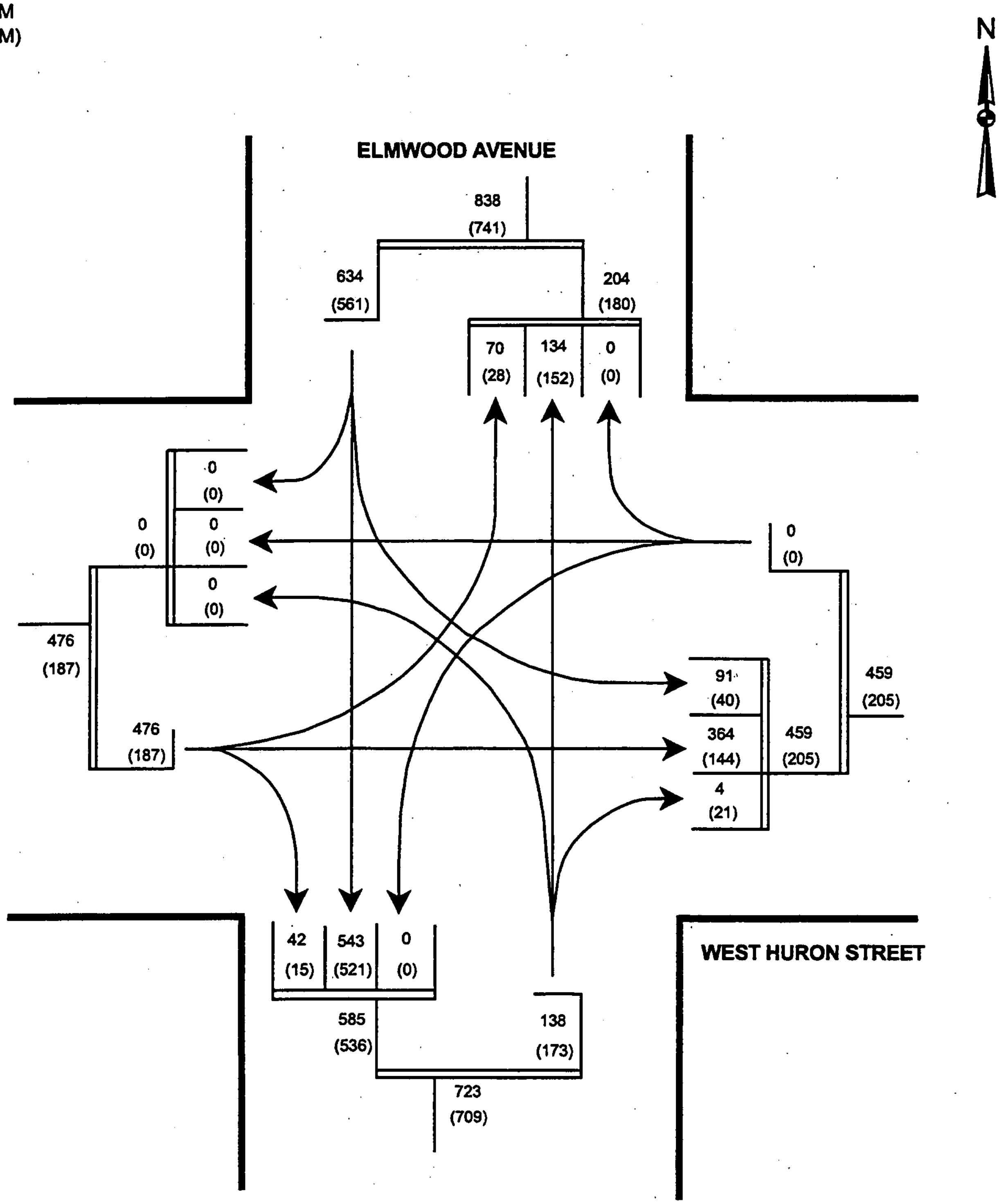
J:\35911.00\db\GIS\ r Franklin & Court
9/25/2001

Municipality	BUFFALO		County	ERIE
Intersection	ELMWOOD AVENUE AT WEST HURON STREET		Area Type	CBD
Time	7:00 - 9:45 AM 2:00 - 5:45 PM	Peak 8:00 - 9:00 AM 4:45 - 5:45 PM	Date Recorded	07/19/01

FIGURE 3-4

URS

Note: AM
(PM)



J:\35911.00\db\GIS\volume.apr Elmwood & W. Huron
8/17/2001

Traffic Imapct Study
Proposed Buffalo Convention Center
Draft EIS

TABLE 3-1 SUMMARY OF ACCIDENTS PER INTERSECTION
EXPANSION OF EXISITNG FACILITY

Pearl Street and Court Street												
Ref. No.	Date	Day of Week	Time	No. of Vehicles	No. of Injured	No. of Killed	PDO	Accident Type	Vehicle Type	Light	Pavement Conditions	Weather
1	9/25/98	F	12:10 PM	2	0	0	1	Right Angle	PC	Daylight	Dry	Clear
2	10/7/98	R	4:20 AM	1	1	0	0	Rear End	PC	Dark Rd Ltd	Wet	Rain
3	11/4/98	W	—	2	1	0	0	Right Turn	PC	Daylight	Dry	Clear
4	12/18/98	F	11:40 AM	2	1	0	0	Rear End	PC	Daylight	Dry	Clear
5	3/22/99	M	3:15 PM	3	0	0	1	Right Angle	PC	Daylight	Slush	Snow
6	5/3/99	M	12:25 PM	1	1	0	0	Pedestrian	PC	Daylight	Dry	Clear
7	2/13/00	Su	3:15 AM	2	0	0	1	Left Turn	PC	Dark Rd Ltd	Dry	Clear
8	4/4/00	T	12:35 PM	2	1	0	0	Right Angle	PC	Daylight	Wet	Cloudy
9	4/25/00	T	11:45 AM	2	0	0	1	Overtaking	PC	—	—	—
10	4/28/00	F	3:40 PM	2	1	0	0	Parked Veh.	PC	Daylight	Dry	Clear
11	5/18/00	R	1:00 PM	1	1	0	0	Pedestrian	PC	Daylight	Wet	Rain
12	5/25/00	R	7:30 PM	2	0	0	1	Left Turn	PC	Daylight	Dry	Cloudy
13	5/26/00	F	4:30 PM	2	0	0	1	Right Turn	PC	Daylight	Dry	Clear
14	6/21/00	W	12:58 PM	1	1	0	0	Pedestrian	PC	Daylight	Dry	Cloudy
15	10/26/00	R	1:30 PM	1	1	0	0	Pedestrian	PC	Daylight	Dry	Clear
16	12/23/00	Sa	9:20 PM	2	0	0	1	Right Angle	PC	Dark Rd Ltd	Wet	Cloudy

Franklin Street and Court Street												
Ref. No.	Date	Day of Week	Time	No. of Vehicles	No. of Injured	No. of Killed	PDO	Accident Type	Vehicle Type	Light	Pavement Conditions	Weather
1	11/15/98	Su	2:30 AM	2	0	0	1	Right Angle	PC	Dark Rd Ltd	Wet	Rain
2	12/24/98	R	8:01 PM	2	1	0	0	Right Angle	PC	Dark Rd Ltd	Dry	Clear
3	1/15/99	F	7:30 AM	1	1	0	0	Pedestrian	PC	Dawn	Snow/Slush	Sleet
4	9/19/99	Su	1:06 PM	2	1	0	0	Right Angle	PC	Daylight	Dry	Clear
5	11/20/99	Sa	4:50 AM	2	1	0	0	Right Angle	PC	—	—	—
6	12/7/99	T	6:50 PM	1	1	0	0	Fixed Object	PC	Dark Rd Ltd	Dry	Clear
7	1/8/00	Sa	4:00 AM	2	0	0	1	Rear End	PC	Dark Rd Ltd	Dry	Clear
8	1/29/00	Sa	4:25 AM	2	1	0	0	Right Angle	PC	Dark Rd Ltd	Dry	Clear
9	4/3/00	M	4:30 AM	2	0	0	1	Overtaking	PC	Dark Rd Ltd	Dry	Clear
10	8/29/00	T	10:00 AM	2	0	0	1	Right Turn	PC	Daylight	Dry	Clear
11	9/17/00	Su	6:40 PM	2	1	0	0	Right Angle	PC	Daylight	Dry	Clear
12	12/22/00	F	10:30 AM	3	0	0	1	Parked Veh.	PC/CV	Daylight	Snow/Ice	Snow
13	1/22/01	M	10:25 AM	1	1	0	0	Pedestrian	PC	Daylight	Dry	Cloudy
14	1/27/01	Sa	1:20 PM	2	0	0	1	Overtaking	PC	Daylight	Wet	Cloudy
15	2/1/01	R	12:40 PM	3	0	0	1	Rear End	PC	Daylight	Dry	Clear
16	2/7/01	W	6:25 PM	1	1	0	0	Pedestrian	PC	Dark Rd Ltd	Dry	Clear

Elmwood Avenue and West Huron Street												
Ref. No.	Date	Day of Week	Time	No. of Vehicles	No. of Injured	No. of Killed	PDO	Accident Type	Vehicle Type	Light	Pavement Conditions	Weather
1	1/13/98	T	8:45 AM	2	0	0	1	Rear End	PC	Daylight	Snow/Ice	Cloudy
2	5/4/98	M	10:00 AM	1	0	0	1	Fixed Object	PC	Daylight	Wet	Cloudy
3	1/29/99	F	3:30 PM	3	1	0	0	Right Angle	PC	Daylight	Dry	Cloudy
4	2/22/99	M	12:45 PM	2	0	0	1	Right Angle	PC	Daylight	Dry	Clear
5	1/20/00	R	2:15 PM	2	0	0	1	Overtaking	PC	Daylight	Wet	Snow
6	2/15/00	T	11:30 AM	2	0	0	1	Right Angle	PC	Daylight	Wet	Clear

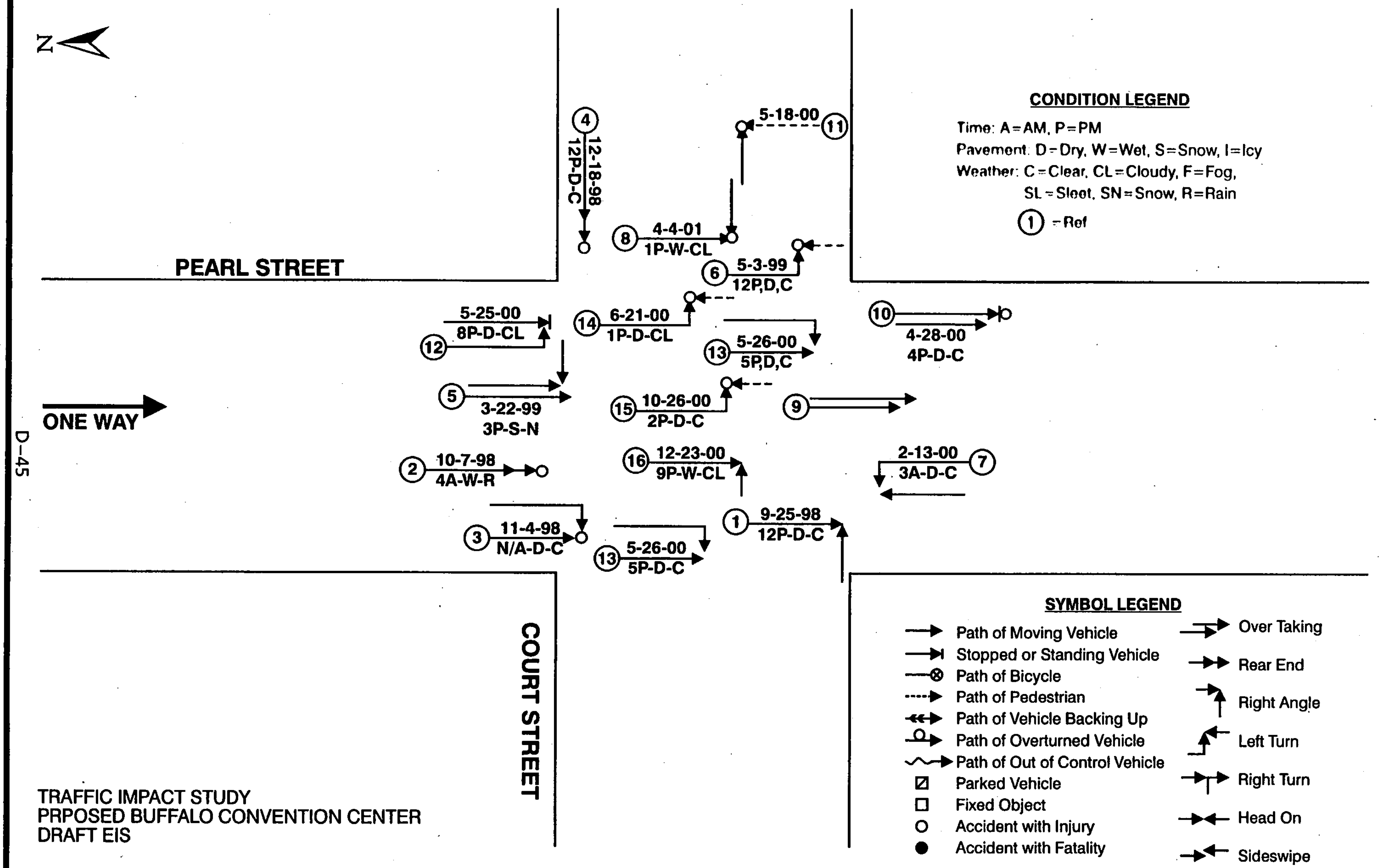
TABLE 3-2 SUMMARY OF ACCIDENT DATA
PEARL STREET AND COURT STREET

TIME OF DAY	# ACC	%	DIRECTION	# VEH	%	DIRECTION	# VEH	%
12 AM - 6 AM	2	12.5	North	1	3.6	Northeast	0	0.0
6 AM - 12 PM	2	12.5	South	13	46.4	Northwest	1	3.6
12 PM - 6 PM	9	56.3	East	1	3.6	Southeast	4	14.3
6 PM - 12 AM	2	12.5	West	6	21.4	Southwest	2	7.1
Unspecified Time	1	6.3				Unknown	0	0.0
Total	16	100.0				Total	28	100.0
WEATHER	# ACC	%	ACC TYPE	# ACC	%	ACC TYPE	# ACC	%
Clear	8	50.0	Overtaking	1	6.3	Bicycle	0	0.0
Cloudy	4	25.0	Rear End	2	12.5	Right Turn	2	12.5
Rain	2	12.5	Right Angle	4	25.0	Driveway	0	0.0
Snow	1	6.3	Left Turn	2	12.5	Backing	0	0.0
Sleet	0	0.0	Pedestrian	4	25.0	Parked Veh.	1	6.3
Fog	0	0.0	Fixed Object	0	0.0	Other	0	0.0
Unknown	1	6.3	Head-On	0	0.0	Unknown	0	0.0
			Sideswipe	0	0.0			
Total	16	100.0				Total	16	100.0

PAVEMENT	# ACC	%	ACCIDENT SEVERITY	# ACC	%
Dry	10	62.5	Fatal Injury	0	0.0
Wet	4	25.0	Non - Fatal Injury	9	56.3
Muddy	0	0.0	Property - Damage Only	7	43.8
Snow/Ice	0	0.0	Non - Reportable	0	0.0
Slush	1	6.3			
Other	1	6.3			
Total	16	100	Total	16	100.0
TIME OF YEAR	# ACC	%	TYPE OF VEHICLE	# VEH	%
Winter (Dec - Feb)	3	18.8	Passenger Cars	16	100.00
Spring (Mar - May)	8	50.0	Commercial Vehicles	0	0.0
Summer (Jun - Aug)	1	6.3			
Fall (Sep - Nov)	4	25.0			
Total	16	100.0	Total	16	100.0
DAY OF WEEK	# ACC	%	LIGHT CONDITIONS	# ACC	%
Sunday	1	6.3	Daylight	12	75.0
Monday	2	12.5	Dawn	0	0.0
Tuesday	2	12.5	Dusk	0	0.0
Wednesday	2	12.5	Dark - Road Lighted	3	18.8
Thursday	4	25.0	Dark - Road Unlighted	0	0.0
Friday	4	25.0	Unspecified	1	6.3
Saturday	1	6.3			
Total	16	100.0	Total	16	100.0

SUMMARY OF ACCIDENT SEVERITY BY YEAR	6/1/98 - 5/31/99	6/1/99 - 5/31/00	6/1/00 - 5/31/01
Fatal Accidents	0	0	0
Injury Accidents	4	3	2
Property Damage Accidents	2	4	1
Non-Reportable Accidents	0	0	0
TOTAL ACCIDENTS	6	7	3

AG16955E-35911.00-092001-CYT



TRAFFIC IMPACT STUDY
PRPOSED BUFFALO CONVENTION CENTER
DRAFT EIS

URS

COLLISION DIAGRAM
PEARL STREET/ COURT STREET
JUNE 1,1998 THROUGH JUNE 1, 2001

FIGURE 3-5

TABLE 3-3 SUMMARY OF ACCIDENT DATA
FRANKLIN STREET AND COURT STREET

TIME OF DAY	# ACC	%	DIRECTION	# VEH	%	DIRECTION	# VEH	%
12 AM - 6 AM	5	31.3	North	9	30.0	Northeast	1	3.6
6 AM - 12 PM	4	25.0	South	3	10.0	Northwest	3	10.0
12 PM - 6 PM	3	18.8	East	8	26.7	Southeast	0	0.0
6 PM - 12 AM	4	25.0	West	6	20.0	Southwest	0	0.0
Unspecified Time	0	0.0				Unknown	0	0.0
Total	16	100.0				Total	30	100.2

WEATHER	# ACC	%	ACC. TYPE	# ACC	%	ACC. TYPE	# ACC	%
Clear	10	62.5	Overtaking	2	12.5	Bicycle	0	0.0
Cloudy	2	12.5	Rear End	2	12.5	Right Turn	1	6.3
Rain	1	6.3	Right Angle	6	37.5	Driveway	0	0.0
Snow	1	6.3	Left Turn	0	0.0	Backing	0	0.0
Sleet	1	6.3	Pedestrian	3	18.8	Parked Veh.	1	6.3
Fog	0	0.0	Fixed Object	1	6.3	Other	0	0.0
Unknown	1	6.3	Head-On	0	0.0	Unknown	0	0.0
			Sideswipe	0	0.0			
Total	16	100.0				Total	16	100.0

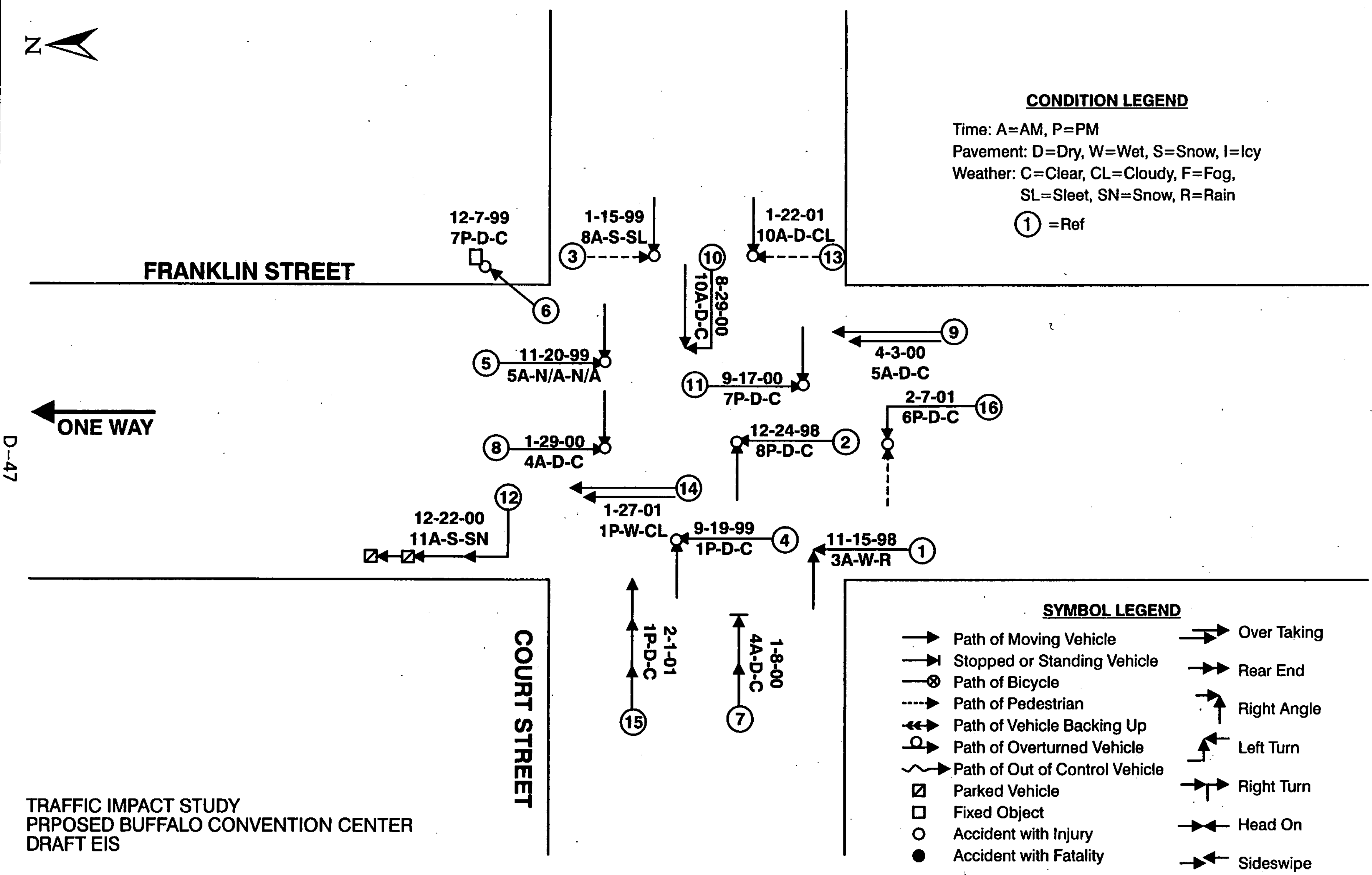
PAVEMENT	# ACC	%	ACCIDENT SEVERITY	# ACC	%
Dry	11	68.8	Fatal Injury	0	0.0
Wet	2	12.5	Non - Fatal Injury	9	56.3
Muddy	0	0.0	Property - Damage Only	7	43.8
Snow/Ice	2	12.5	Non - Reportable	0	0.0
Slush	0	0.0			
Other	1	6.3			
Total	16	100.0	Total	16	100.0

TIME OF YEAR	# ACC	%	TYPE OF VEHICLE	# VEH	%
Winter (Dec - Feb)	10	62.5	Passenger Cars	15	93.75
Spring (Mar - May)	1	6.3	Commercial Vehicles	1	6.25
Summer (Jun - Aug)	1	6.3			
Fall (Sep - Nov)	4	25.0			
Total	16	100.0	Total	16	100.0

DAY OF WEEK	# ACC	%	LIGHT CONDITIONS	# ACC	%
Sunday	3	18.8	Daylight	7	43.8
Monday	2	12.5	Dawn	1	6.3
Tuesday	2	12.5	Dusk	0	0.0
Wednesday	1	6.3	Dark - Road Lighted	7	43.8
Thursday	2	12.5	Dark - Road Unlighted	0	0.0
Friday	2	12.5	Unspecified	1	6.3
Saturday	4	25.0			
Total	16	100.0	Total	16	100.0

SUMMARY OF ACCIDENT SEVERITY BY YEAR	6/1/98 - 5/31/99	6/1/99 - 5/31/00	6/1/00 - 5/31/01
Fatal Accidents	0	0	0
Injury Accidents	2	4	3
Property Damage Accidents	1	2	4
Non-Reportable Accidents	0	0	0
TOTAL ACCIDENTS	3	6	7

AG16955F-35911.00-092001-CYT



URS

COLLISION DIAGRAM
FRANKLIN STREET/ COURT STREET
JUNE 1,1998 THROUGH JUNE 1, 2001

FIGURE 3-6

TABLE 3-4 SUMMARY OF ACCIDENT DATA
ELMWOOD AVE. AND W. HURON ST.

TIME OF DAY	# ACC	%	DIRECTION	# VEH	%	DIRECTION	# VEH	%
12 AM - 6 AM	0	0.0	North	2	16.7	Northeast	0	0.0
6 AM - 12 PM	3	50.0	South	6	50.0	Northwest	0	0.0
12 PM - 6 PM	3	50.0	East	3	25.0	Southeast	1	8.3
6 PM - 12 AM	0	0.0	West	0	0.0	Southwest	0	0.0
Unspecified Time	0	0.0				Unknown	0	0.0
Total	6	100.0				Total	12	100.0

WEATHER	# ACC	%	ACC. TYPE	# ACC	%	ACC. TYPE	# ACC	%
Clear	2	33.3	Overtaking	1	16.7	Bicycle	0	0.0
Cloudy	3	50.0	Rear End	1	16.7	Right Turn	0	0.0
Rain	0	0.0	Right Angle	3	50.0	Driveway	0	0.0
Snow	1	16.7	Left Turn	0	0.0	Backing	0	0.0
Sleet	0	0.0	Pedestrian	0	0.0	Parked Veh.	0	0.0
Fog	0	0.0	Fixed Object	1	16.7	Other	0	0.0
Unknown	0	0.0	Head-On	0	0.0	Unknown	0	0.0
			Sideswipe	0	0.0			
Total	6	100.0				Total	6	100.0

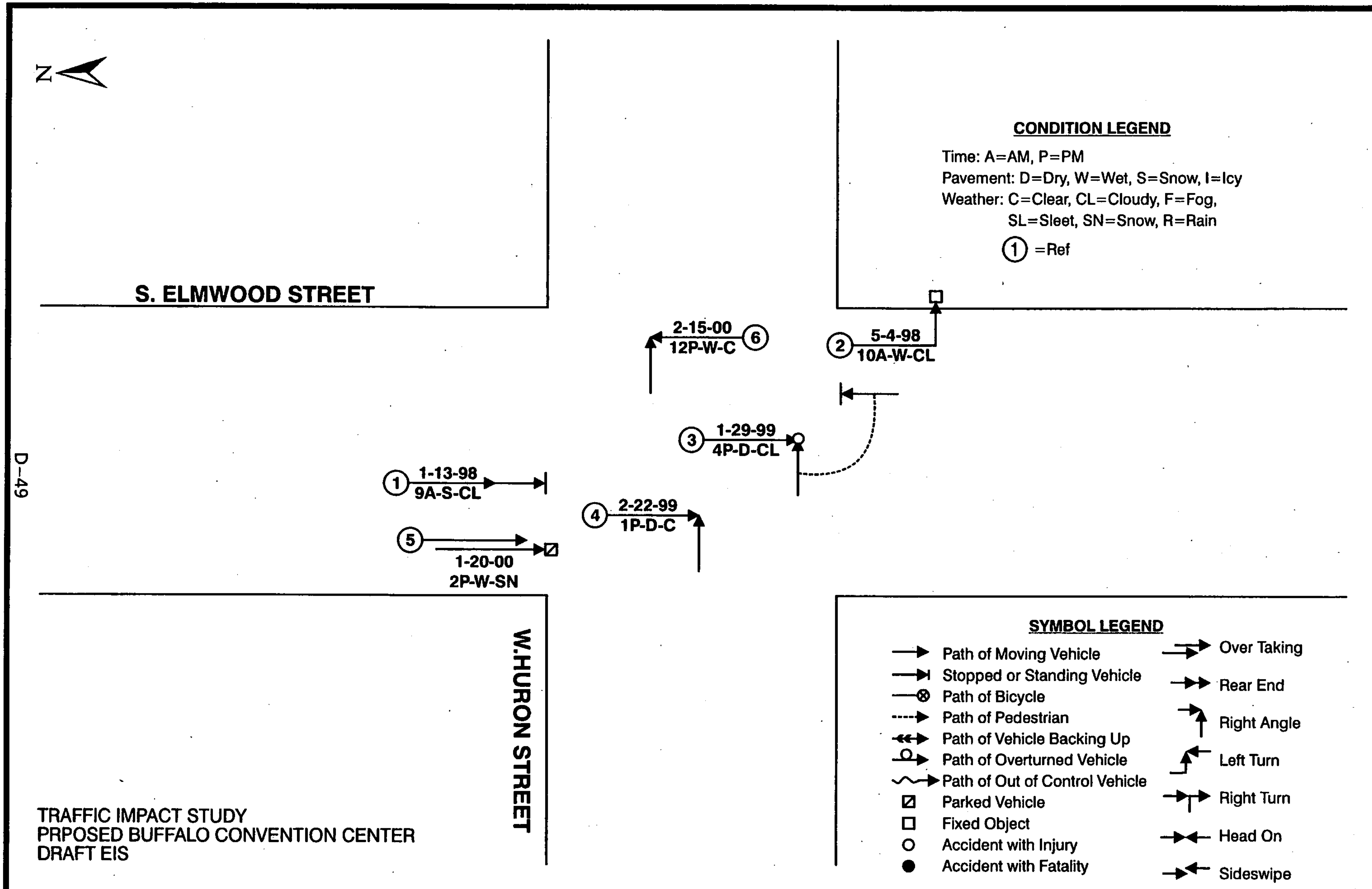
PAVEMENT	# ACC	%	ACCIDENT SEVERITY	# ACC	%
Dry	2	33.3	Fatal Injury	0	0.0
Wet	3	18.8	Non - Fatal Injury	1	16.7
Muddy	0	0.0	Property - Damage Only	5	83.3
Snow/Ice	1	6.3	Non - Reportable	0	0.0
Slush	0	0.0			
Other	0	0.0			
Total	6	100	Total	6	100.0

TIME OF YEAR	# ACC	%	TYPE OF VEHICLE	# VEH	%
Winter (Dec - Feb)	5	83.3	Passenger Cars	6	100.00
Spring (Mar - May)	1	16.7	Commercial Vehicles	0	0.00
Summer (Jun - Aug)	0	0.0			
Fall (Sep - Nov)	0	0.0			
Total	6	100.0	Total	6	100.0

DAY OF WEEK	# ACC	%	LIGHT CONDITIONS	# ACC	%
Sunday	0	0.0	Daylight	6	100.0
Monday	2	33.3	Dawn	0	0.0
Tuesday	2	33.3	Dusk	0	0.0
Wednesday	0	0.0	Dark - Road Lighted	0	0.0
Thursday	1	16.7	Dark - Road Unlighted	0	0.0
Friday	1	16.7	Unspecified	0	0.0
Saturday	0	0.0			
Total	6	100.0	Total	6	100.0

SUMMARY OF ACCIDENT SEVERITY BY YEAR	6/1/98 - 5/31/99	6/1/99 - 5/31/00	6/1/00 - 5/31/01
Fatal Accidents	0	0	0
Injury Accidents	1	0	0
Property Damage Accidents	3	2	0
Non-Reportable Accidents	0	0	0
TOTAL ACCIDENTS	4	2	0

AG16955D-35911.00-092001-CYT



TRAFFIC IMPACT STUDY
PRPOSED BUFFALO CONVENTION CENTER
DRAFT EIS

URS

COLLISION DIAGRAM
S. ELMWOOD STREET/ W. HURON STREET
JUNE 1,1998 THROUGH JUNE 1, 2001

FIGURE 3-7

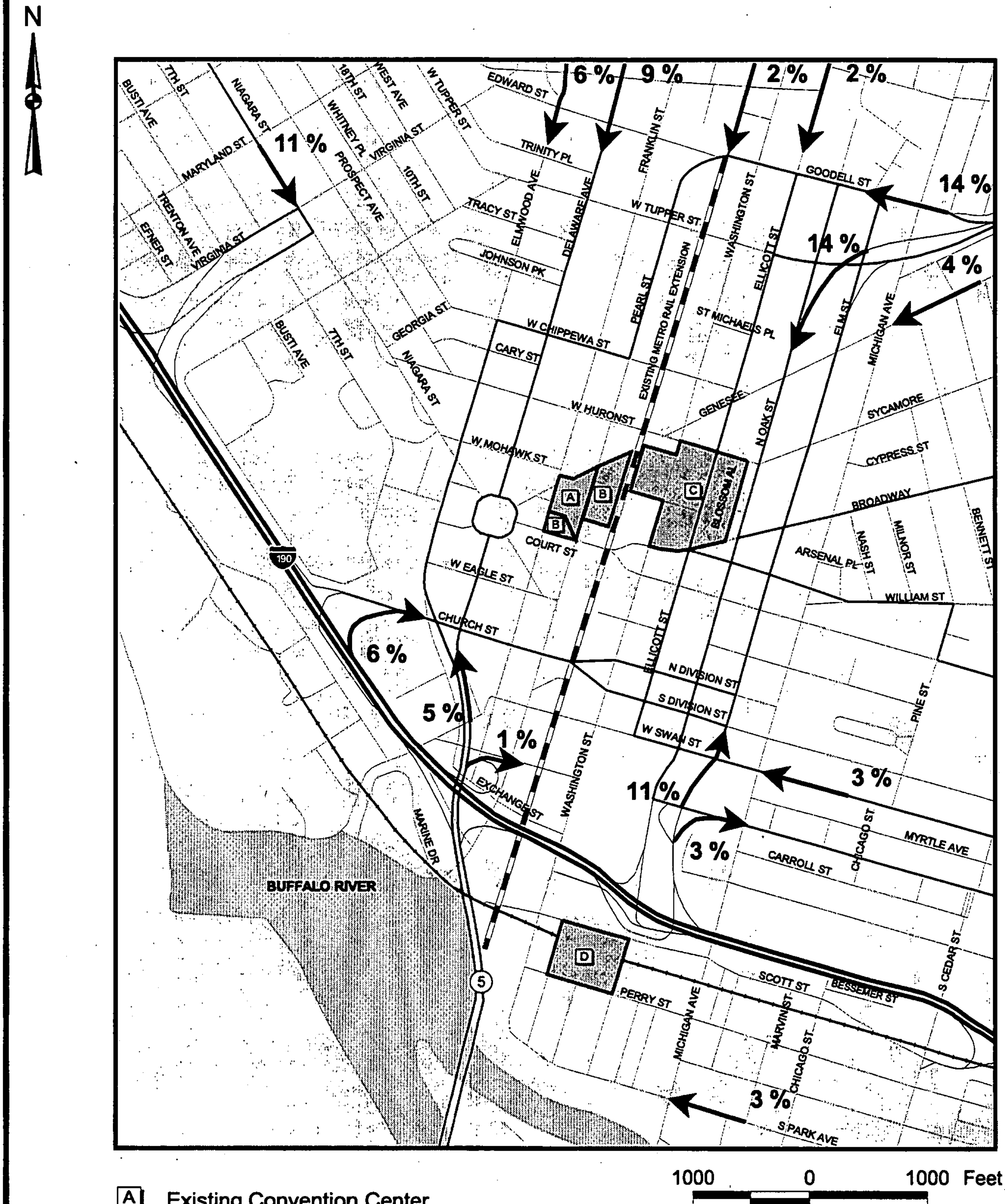
TABLE 3-5 LEVEL OF SERVICE SUMMARY
EXPANSION OF EXISTING FACILITY

INTERSECTION	APPROACH	EXISTING CONDITIONS		PROJECTED CONDITIONS ETC (2005)		PROJECTED CONDITIONS ETC + 5 (2010)	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK
Elmwood Avenue at West Huron Street	ELMWOOD AVENUE						
	Northbound	A	A	A	A	A	A
	Southbound	A	A	A	A	A	A
	WEST HURON STREET						
	Eastbound	B	B	B	B	B	B
	INTERSECTION						
	Level of Service	B	A	B	A	B	A
	Average Vehicle Delay (sec)	11.3	8.8	11.6	9.0	11.9	9.2
Franklin Street at Court Street	FRANKLIN STREET						
	Northbound	B	B	B	B	B	B
	COURT STREET						
	Eastbound	A	A	A	A	A	A
	Westbound	A	A	A	A	A	A
	INTERSECTION						
	Level of Service	B	A	B	B	B	B
	Average Vehicle Delay (sec)	10.2	9.9	10.5	10.3	10.8	10.6
Pearl Street at Court Street	PEARL STREET						
	Southbound	B	A	B	A	B	A
	COURT STREET						
	Eastbound	A	A	A	A	A	A
	Westbound	A	A	A	A	A	A
	INTERSECTION						
	Level of Service	A	A	A	A	A	A
	Average Vehicle Delay (sec)	6.7	6.8	7.1	7.3	7.6	7.9

TABLE 3-6 IDENTIFICATION OF PARKING FACILITIES
EXPANSION OF EXISTING FACILITY

ID NO.	TYPE	NUMBER OF SPACES	UTILIZATION RATE (%)	UNUSED SPACES	COMMERCIAL (C) / NON COMMERCIAL (NC)	PUBLIC / PRIVATE
1	Subsurface Lot	980	99	10	C	Public
2	Parking Lot	1,196	93	84	C	Public
3	Parking Lot	65	85	10	NC	Public
4	Parking Lot	40	92	3	C	Private
5	Parking Lot	430	84	69	C	Private
6	Parking Lot	14	43	8	NC	Private
7	Parking Ramp	1,000	94	60	C	Private
8	Parking Lot	60	90	6	C	Private
9	Parking Lot	148	82	27	C	Private
10	Parking Lot	22	45	12	NC	Private
11	Parking Lot	120	100	0	C	Private
12	Parking Lot	25	60	10	NC	Private
13	Parking Lot	60	67	20	C	Private
14	Parking Lot	160	80	32	C	Private
15	Parking Lot	138	51	68	NC	Private
16	Parking Lot	400	85	60	C	Private
17	Parking Lot	220	95	11	C	Private
18	Parking Lot	17	6	16	NC	Private
19	Parking Ramp	615	91	55	C	Public
20	Parking Lot	44	100	0	C	Private
21	Subsurface Lot	232	85	35	C	Private
22	Parking Lot	28	61	11	NC	Private
23	Parking Lot	57	51	28	NC	Private
24	Parking Lot	32	91	3	C	Private
25	Parking Lot	141	53	66	C	Private
26	Parking Ramp	609	96	24	C	Pub:ic
27	Parking Lot	40	80	8	NC	Private
28	Parking Lot	190	81	36	C	Private
29	Parking Lot	71	50	36	C	Private
30	Parking Lot	13	77	3	NC	Private
	SUM:	**7,167**		**809**		

Section 4.0
Traffic Analysis / Trip Generation Figures



A Existing Convention Center

B Proposed Expansion

C Proposed Mohawk Site

D Proposed Waterfront Site

Traffic Impact Study
Proposed Buffalo Convention Center
Draft EIS

URS

TRIP DISTRIBUTION STUDY
PERCENTAGE OF INCOMING TRAFFIC

FIGURE 4-1

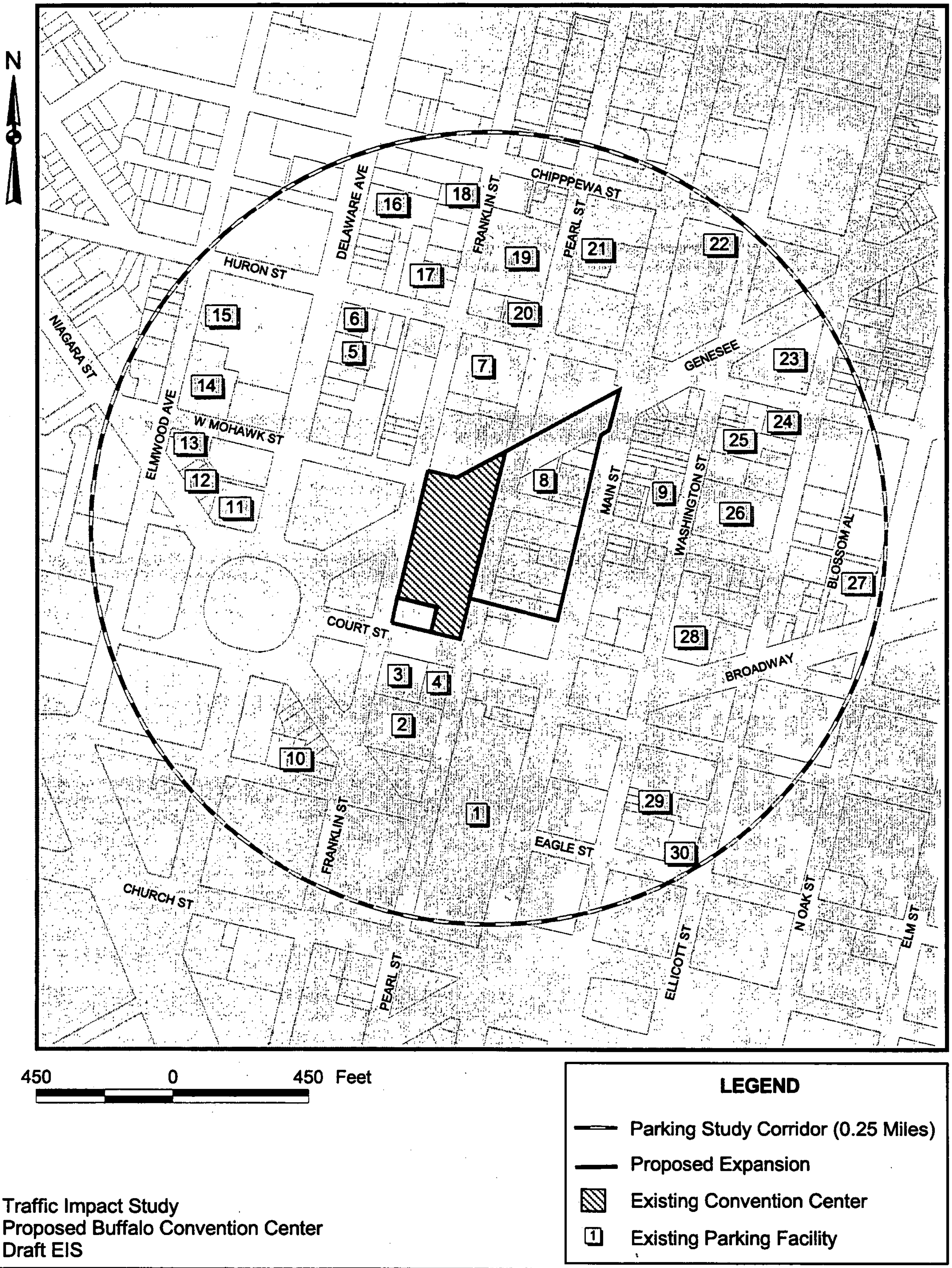
J:\35911.00\db\traffic.apr Distribution
8/1/2001

TABLE 4-1 INTERSECTION LEVEL OF SERVICE COMPARISON
"BUILD" VERSUS "NO BUILD"

SITE	INTERSECTION	"NO BUILD"						"BUILD"			
		AM PEAK			PM PEAK			AM PEAK		PM PEAK	
		EXISTING	ETC	ETC + 5	EXISTING	ETC	ETC + 5	ETC	ETC + 5	ETC	ETC + 5
MOHAWK	Washington & Chippewa	C	D	E	A	B	B	E	F	B	C
	Ellicott & E. Huron	B	B	B	B	B	B	B	B	B	B
	N. Oak & Genesee	C	E	F	B	B	C	F	F	B	C
	Elm & Genesee	B	B	B	B	C	C	B	B	C	C
WATERFRONT	Washington & Scott	A	A	A	A	A	A	A	A	A	A
	Washington & Perry	A	A	A	B	B	B	B	B	C	C
	Michigan & South Park	A	A	A	A	B	B	A	B	B	B
EXISTING	Elmwood & W. Huron	B	B	B	A	A	A	B	B	A	A
	Franklin & Court	B	B	B	A	B	B	B	B	B	B
	Pearl & Court	A	A	A	A	A	A	A	A	A	A

**TABLE 4-2 PROPOSED CONCEPTUAL SOLUTIONS
INTERSECTIONS WITH LOS "F"**

NORTH OAK STREET AND GENESEE						
APPROACH	AM PEAK - NO BUILD (ETC + 5)			AM PEAK - BUILD (ETC + 5)		
	EXISTING CONDITIONS	OPTIMIZE SIGNAL TIMING	ADD A THROUGH LANE & OPTIMIZE SIGNAL TIMING	EXISTING CONDITIONS	OPTIMIZE SIGNAL TIMING	ADD A THROUGH LANE & OPTIMIZE SIGNAL TIMING
NORTH OAK STREET						
Southbound Through	F	F	D	F	E	E
Southbound Right	A	A	A	A	A	A
GENESEE						
Eastbound	C	E	D	C	D	D
Westbound	C	F	E	C	F	F
INTERSECTION						
Level of Service	F	F	D	F	E	E
WASHINGTON STREET AND CHIPPEWA STREET						
WASHINGTON STREET						
Southbound	B	B	---	---	---	---
EAST CHIPPEWA STREET						
Eastbound	A	A	---	---	---	---
Westbound	F	B				
INTERSECTION						
Level of Service	E	B	---	---	---	---



Traffic Impact Study
Proposed Buffalo Convention Center
Draft EIS

J:\35911.00\db\GIS\traffic.apr Existing Parking
10/18/2001

URS

EXPANSION OF EXISTING FACILITY
PARKING IDENTIFICATION

FIGURE 3-8

Table 4-3 Convention Center Occupancy Assumptions

Population Analysis			
Room	Program Area (sf)	Max Population Density (sf/person - life safety)	Max Population (Life Safety)
Exhibition Hall	125,000	15	8,333
Ballroom	30,000	7	4,286
Meeting Rooms	30,000	7	4,286

Use Scenarios					
	Exhibit (25 sf/person)		Banquet (15 sf/person)		Meeting (10 sf/person)
A	5,000	C	3,333	E	5,000
B	3,000	D	2,000	F	3,000
				G	3,000

Use Scenarios* Assumptions	
A	5,000 people maximum daily attendance in 125,000 square feet of exhibition hall
B	3,000 maximum daily attendance in 75,000 square foot of exhibition hall
C	50,000 square feet of exhibition hall used for banquet
D	full ballroom used for banquet
E	50,000 square feet of exhibition hall used for plenary session
F	full ballroom used for theatre - style seating
G	all meeting rooms with theater - style seating

Combination Scenarios		
A + D	7,000	Full exhibit, plus banquet in ballroom.
B + C	6,333	Exhibit in 75,000 sft of ex. hall, plus banquet in 50,000 sf of ex. hall.
A + G	8,000	Full exhibit, plus meeting in ballroom.
F + G	6,000	Meetings in ballroom and all meeting rooms.
D + E	7,000	Banquet in ballroom, plus plenary session in 50,000 sf of ex. Hall.

* For the purpose of this analysis, it has been agreed between ECDEP, E & E, HNTB, and URS, that the use scenario assumptions are a valid approach in estimating the occupancy.

Figure 4-2 Parking Demand Developed using Engineering / Architectural Standards

Parking Analysis:
Needed Parking

400 room hotel:

$$400\,rooms * 0.8\,\frac{spaces}{room} =$$ **320 spaces** (Equation 1)

30,000 sf Meeting Room:

$$\frac{30{,}000\,sf * 60\%\,usable\_space}{15\,\frac{sf}{person}} * 0.5\,\frac{spaces}{person} =$$ **600 spaces** (Equation 2)

125,000 sf Exhibition Hall:

$$125{,}000\,sf \bullet \frac{10\,spaces}{1000\,sf} =$$ **3,750 spaces** (Equation 3)

30,000 sf Ball Room:

$$30{,}000\,sf * \frac{10\,spaces}{1000\,sf} =$$ **300 spaces** (Equation 4)

Σ: 4,970 parking spaces

Note: All occupancy figures were generated using "Parking by Weant and Levinson, the Foundation of Transprotation" (1990).

TABLE 4-4 AVERAGE ACCIDENT RATES

$$Rac^{*} = \frac{A * 1{,}000{,}000}{B * 365 * T}$$

Rac = Accident Rate (One Million Entering Vehicles MEV)
A = Number of Accidents per Year
*B*** = Average Annual Daily Traffic (AADT) during Study Period (vpd)
T = Study Period (years) = 3

SITE	INTERSECTION	A	Design Hourly Volume PM Peak (vph)	B	ACTUAL Rac (ACC / MEV)	STATE Rac (ACC / MEV)
Mohawk Site	Washington & E. Chippewa	7	1,038	10,380	0.62	0.75
	N. Oak St. & Genesee	7	2,667	26,670	0.24	0.75
	Elm St. & Genesee	21	2,288	22,880	**0.84**	0.75
	Ellicott St. & E. Huron St.	7	620	6,200	**1.03**	0.75
Waterfront Site	Washington St. & Scott St.	8	681	6,810	**1.07**	0.75
	Washington St. & Perry St.	2	383	3,830	**0.48**	0.18
	Michigan Ave. & S. Park Ave.	4	1,106	11,060	0.33	0.75
Existing Site	Elmwood Ave. & W. Huron St.	6	921	9,210	0.59	0.75
	Franklin St. & Court St.	16	1,052	10,520	**1.39**	0.75
	Pearl St. & Court St.	16	991	9,910	**1.47**	0.75

* Formula taken from the ITE, Traffic Engineering Handbook, 5th Edition (1999)
** According to AASHTO, the design hourly volume accounts for 8% - 12 % of the Average Daily Traffic (ADT)
As such, URS selected 10% for analysis

Section 5.0
Synchro 5.0 Output

Section 5-1
Existing / No Build / AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.907									0.952	
Flt Protected					0.991						0.998	
Satd. Flow (prot)	0	1512	0	0	1675	0	0	0	0	0	3067	0
Flt Permitted					0.867						0.998	
Satd. Flow (perm)	0	1512	0	0	1465	0	0	0	0	0	3067	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		196									148	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	66	184	86	484	0	0	0	0	16	355	166
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.75	0.94	0.67	0.88	0.25	0.25	0.25	0.25	0.67	0.89	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	6%	1%	2%	1%	0%	0%	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	88	196	128	550	0	0	0	0	24	399	200
Lane Group Flow (vph)	0	284	0	0	678	0	0	0	0	0	623	0
Turn Type				Perm						Perm		
Protected Phases		2			2						1	
Permitted Phases				2						1		
Detector Phases		2		2	2					1	1	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					8.0	8.0	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	35.0	35.0	0.0
Total Split (%)	0%	50%	0%	50%	50%	0%	0%	0%	0%	50%	50%	0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lead/Lag		Lag		Lag	Lag					Lead	Lead	
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0						32.0	
Actuated g/C Ratio		0.46			0.46						0.46	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.36			1.01						0.42	
Uniform Delay, d1		3.4			19.0						9.4	
Delay		4.3			52.3						9.6	
LOS		A			D						A	
Approach Delay		4.3			52.3						9.6	
Approach LOS		A			D						A	

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 8 (11%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 40
Control Type: Pretimed
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 26.9 Intersection LOS: C
Intersection Capacity Utilization 88.7% ICU Level of Service D

Splits and Phases: 11: E. Chippewa Street & Washington Street

ø1	ø2
35 s	35 s

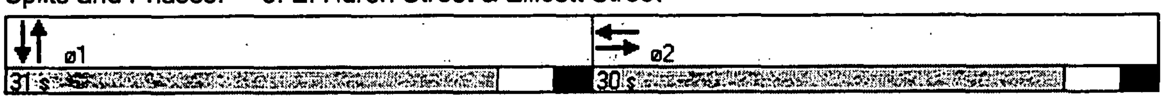
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.989			0.946			0.990			0.985	
Flt Protected		0.989			0.992			0.997			0.994	
Satd. Flow (prot)	0	1605	0	0	1552	0	0	1458	0	0	1553	0
Flt Permitted		0.906			0.940			0.997			0.971	
Satd. Flow (perm)	0	1470	0	0	1471	0	0	1458	0	0	1517	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			71			9			4	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	18	103	5	33	92	71	16	247	15	1	21	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.45	0.78	0.31	0.83	0.79	0.68	0.80	0.88	0.63	0.25	0.75	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	6%	0%	0%	4%	4%	50%	13%	20%	0%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	40	132	16	40	116	104	20	281	24	4	28	4
Lane Group Flow (vph)	0	188	0	0	260	0	0	325	0	0	36	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1	1		1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	49%	49%	0%	49%	49%	0%	51%	51%	0%	51%	51%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			28.0			28.0	
Actuated g/C Ratio		0.44			0.44			0.46			0.46	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.29			0.38			0.48			0.05	
Uniform Delay, d1		10.2			8.0			11.1			8.1	
Delay		10.6			8.4			11.7			8.6	
LOS		B			A			B			A	
Approach Delay		10.6			8.4			11.7			8.6	
Approach LOS		B			A			B			A	

Intersection Summary

Area Type: CBD
Cycle Length: 61
Actuated Cycle Length: 61
Offset: 20 (33%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 10.3 Intersection LOS: B
Intersection Capacity Utilization 63.5% ICU Level of Service B

Splits and Phases: 6: E. Huron Street & Ellicott Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	50
Trailing Detector (ft)		0		0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.953										0.850
Flt Protected					0.990						0.999	
Satd. Flow (prot)	0	2741	0	0	3191	0	0	0	0	0	4617	1439
Flt Permitted					0.990						0.999	
Satd. Flow (perm)	0	2741	0	0	3191	0	0	0	0	0	4617	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1										137
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	126	35	75	357	0	0	0	0	42	2723	518
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.81	0.49	0.72	0.85	0.25	0.25	0.25	0.25	0.75	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	37%	0%	1%	0%	0%	0%	0%	2%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	156	71	104	420	0	0	0	0	56	3094	589
Lane Group Flow (vph)	0	227	0	0	524	0	0	0	0	0	3150	589
Turn Type				Perm						Split		Prot
Protected Phases		2			2					1	1	1
Permitted Phases				2	2							
Detector Phases		2		2	2					1	1	1
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	21.0
Total Split (s)	0.0	23.0	0.0	23.0	23.0	0.0	0.0	0.0	0.0	52.0	52.0	52.0
Total Split (%)	0%	31%	0%	31%	31%	0%	0%	0%	0%	69%	69%	69%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	2.0
Lead/Lag		Lag		Lag	Lag					Lead	Lead	Lead
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	Yes
Recall Mode		Max		Max	Max					Max	Max	Max
Act Effct Green (s)		20.0			20.0						49.0	49.0
Actuated g/C Ratio		0.27			0.27						0.65	0.65

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.31			0.62						1.04	0.60
Uniform Delay, d1		21.9			24.1						13.0	5.3
Delay		22.2			24.5						40.4	5.8
LOS		C			C						D	A
Approach Delay		22.2			24.5						35.0	
Approach LOS		C			C						C	

Intersection Summary

Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 20 (27%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 80
Control Type: Pretimed
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 33.1 Intersection LOS: C
Intersection Capacity Utilization 101.3% ICU Level of Service F

Splits and Phases: 2: Genesee Street & Oak Street

ø1 52 s
ø2 23 s

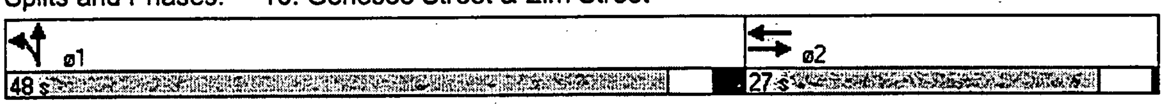
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.86	0.86	0.86	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.995			0.987				
Flt Protected		0.975						0.991				
Satd. Flow (prot)	0	2978	0	0	3055	0	0	5537	0	0	0	0
Flt Permitted		0.740						0.991				
Satd. Flow (perm)	0	2261	0	0	3055	0	0	5537	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			49				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	73	80	0	0	194	5	270	1398	128	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.91	0.74	0.25	0.82	0.63	0.75	0.91	0.74	0.25	0.25	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	13%	0%	0%	6%	0%	3%	4%	5%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	92	88	0	0	237	8	360	1536	173	0	0	0
Lane Group Flow (vph)	0	180	0	0	245	0	0	2069	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		2			2		1	1				
Permitted Phases	2											
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.0	20.0			20.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	48.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	36%	36%	0%	0%	36%	0%	64%	64%	0%	0%	0%	0%
Yellow Time (s)	3.5	3.5			3.5		3.0	3.0				
All-Red Time (s)	0.5	0.5			0.5		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			45.0				
Actuated g/C Ratio		0.32			0.32			0.60				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.25			0.25			0.62				
Uniform Delay, d1		18.8			18.4			9.3				
Delay		19.2			18.7			9.4				
LOS		B			B			A				
Approach Delay		19.2			18.7			9.4				
Approach LOS		B			B			A				

Intersection Summary

Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 48 (64%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 11.0 Intersection LOS: B
Intersection Capacity Utilization 57.3% ICU Level of Service A

Splits and Phases: 16: Genesee Street & Elm Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.933			0.937			0.980			0.988	
Flt Protected		0.989			0.987			0.991			0.991	
Satd. Flow (prot)	0	2750	0	0	2683	0	0	2608	0	0	3004	0
Flt Permitted		0.908			0.893			0.898			0.893	
Satd. Flow (perm)	0	2525	0	0	2427	0	0	2363	0	0	2707	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			44			12			23	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	15	15	17	20	21	27	13	61	8	49	225	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.63	0.53	0.71	0.66	0.61	0.81	0.95	0.67	0.77	0.89	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	27%	0%	5%	14%	15%	38%	16%	25%	8%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	16	24	32	28	32	44	16	64	12	64	253	28
Lane Group Flow (vph)	0	72	0	0	104	0	0	92	0	0	345	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		27.0	27.0		27.0	27.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Act Effct Green (s)		12.1			12.1			30.1			30.1	
Actuated g/C Ratio		0.24			0.24			0.61			0.61	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.12			0.17			0.06			0.21	
Uniform Delay, d1		7.6			8.0			2.7			3.2	
Delay		4.1			4.1			3.5			3.7	
LOS		A			A			A			A	
Approach Delay		4.1			4.1			3.5			3.7	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 49
Natural Cycle: 50
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.21
Intersection Signal Delay: 3.8 Intersection LOS: A
Intersection Capacity Utilization 24.1% ICU Level of Service A

Splits and Phases: 46: Scott Street & Washington Street

ø1	ø2
35 s	25 s

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (veh/h)	17	6	5	161	166	8
Peak Hour Factor	0.61	0.75	0.25	0.88	0.85	1.00
Hourly flow rate (veh/h)	28	8	20	183	195	8

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	31	5	13	190	195	8
Volume Left (vph)	28	0	0	0	195	0
Volume Right (vph)	0	0	0	183	0	8
Hadj (s)	0.3	0.0	0.7	-0.2	0.5	-0.4
Departure Headway (s)	5.5	5.3	5.7	4.9	5.6	4.7
Degree Utilization, x	0.05	0.01	0.02	0.26	0.30	0.01
Capacity (veh/h)	616	650	487	583	638	748
Control Delay (s)	7.6	7.1	7.6	8.4	9.8	6.6
Approach Delay (s)	7.5		8.3		9.6	
Approach LOS	A		A		A	

Intersection Summary			
Delay	8.9		
HCM Level of Service	A		
Intersection Capacity Utilization	25.9%	ICU Level of Service	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.906			0.909			0.993			0.983	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1710	1362	0	1221	1472	0	1593	1641	0	1464	1544	0
Flt Permitted				0.736			0.646			0.376		
Satd. Flow (perm)	1710	1362	0	946	1472	0	1083	1641	0	579	1544	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			144			7			17	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	8	9	12	83	164	90	373	15	47	129	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.67	0.45	0.75	0.67	0.87	0.87	0.81	0.63	0.78	0.83	0.50
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	22%	33%	2%	8%	2%	3%	13%	11%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	12	20	16	124	189	103	460	24	60	155	20
Lane Group Flow (vph)	0	32	0	16	313	0	103	484	0	60	175	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	9.0		9.0	9.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		22.0		22.0	22.0		32.0	32.0		32.0	32.0	
Actuated g/C Ratio		0.37		0.37	0.37		0.53	0.53		0.53	0.53	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.06		0.05	0.50		0.18	0.55		0.19	0.21	
Uniform Delay, d1		4.6		12.2	7.4		7.2	9.1		7.3	6.6	
Delay		7.8		12.6	8.1		7.6	9.6		7.9	6.8	
LOS		A		B	A		A	A		A	A	
Approach Delay		7.8			8.3			9.3			7.1	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 8.5 Intersection LOS: A
Intersection Capacity Utilization 62.3% ICU Level of Service B

Splits and Phases: 36: South Park Ave & Michigan Ave

ø1	ø2
35 s	25 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↑↱						↑↱			↰↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.982						0.995				
Flt Protected		0.992									0.993	
Satd. Flow (prot)	0	3142	0	0	0	0	0	1639	0	0	3114	0
Flt Permitted		0.992									0.993	
Satd. Flow (perm)	0	3142	0	0	0	0	0	1639	0	0	3114	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24						5				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	70	364	42	0	0	0	0	134	4	91	543	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.87	0.62	0.90	0.90	0.90	0.90	0.70	0.50	0.95	0.96	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	4%	0%	13%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	88	418	68	0	0	0	0	191	8	96	566	0
Lane Group Flow (vph)	0	574	0	0	0	0	0	199	0	0	662	0
Turn Type	Perm									Perm		
Protected Phases		2						1			1	
Permitted Phases	2	2								1	1	
Detector Phases	2	2						1		1	1	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0						21.0		21.0	21.0	
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38%	38%	0%	0%	0%	0%	0%	62%	0%	62%	62%	0%
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lead/Lag	Lag	Lag						Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes						Yes		Yes	Yes	
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		22.0						37.0			37.0	
Actuated g/C Ratio		0.34						0.57			0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.53						0.21			0.37	
Uniform Delay, d1		16.5						6.7			7.6	
Delay		16.9						6.9			7.8	
LOS		B						A			A	
Approach Delay		16.9						6.9			7.8	
Approach LOS		B						A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 11.3 Intersection LOS: B
Intersection Capacity Utilization 60.3% ICU Level of Service B

Splits and Phases: 31: W.Huron St. & Elmwood Ave

ø1	ø2
40 s	25 s

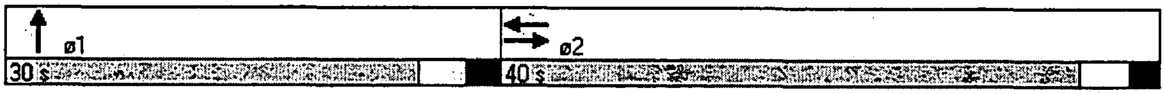
	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.963			0.970				
Flt Protected		0.998						0.995				
Satd. Flow (prot)	0	2789	0	0	2980	0	0	2881	0	0	0	0
Flt Permitted		0.929						0.995				
Satd. Flow (perm)	0	2596	0	0	2980	0	0	2881	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					97			51				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	7	245	0	0	365	118	25	261	69	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.50	0.81	0.90	0.90	0.86	0.84	0.50	0.82	0.75	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	17%	0%	0%	5%	5%	44%	3%	10%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	14	302	0	0	424	140	50	318	92	0	0	0
Lane Group Flow (vph)	0	316	0	0	564	0	0	460	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		2			2			1				
Permitted Phases	2				2		1					
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0
Total Split (%)	57%	57%	0%	0%	57%	0%	43%	43%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		37.0			37.0			27.0				
Actuated g/C Ratio		0.53			0.53			0.39				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.23			0.35			0.40				
Uniform Delay, d1		8.8			7.7			13.7				
Delay		9.0			7.9			14.0				
LOS		A			A			B				
Approach Delay		9.0			7.9			14.0				
Approach LOS		A			A			B				

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 10.2 Intersection LOS: B
Intersection Capacity Utilization 39.3% ICU Level of Service A

Splits and Phases: 21: Court Street & Franklin Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↰↑						↰↑↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Ped Bike Factor												
Frt		0.931									0.957	
Flt Protected					0.986						0.995	
Satd. Flow (prot)	0	2712	0	0	3076	0	0	0	0	0	4123	0
Flt Permitted					0.700						0.995	
Satd. Flow (perm)	0	2712	0	0	2184	0	0	0	0	0	4123	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		189									133	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	182	168	194	449	0	0	0	0	24	230	73
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.83	0.89	0.92	0.84	0.90	0.90	0.90	0.90	0.50	0.82	0.55
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	12%	11%	2%	5%	0%	0%	0%	0%	8%	11%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	219	189	211	535	0	0	0	0	48	280	133
Lane Group Flow (vph)	0	408	0	0	746	0	0	0	0	0	461	0
Turn Type				D.P+P						Perm		
Protected Phases		3		2	2 3						1	
Permitted Phases				3						1		
Detector Phases		3		2	2 3					1	1	
Minimum Initial (s)		4.0		4.0						4.0	4.0	
Minimum Split (s)		21.0		8.0						9.0	9.0	
Total Split (s)	0.0	34.0	0.0	8.0	42.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0
Total Split (%)	0%	49%	0%	11%	60%	0%	0%	0%	0%	40%	40%	0%
Yellow Time (s)		3.0		2.0						3.0	3.0	
All-Red Time (s)		2.0		1.0						2.0	2.0	
Lead/Lag				Lag						Lead	Lead	
Lead-Lag Optimize?				Yes						Yes	Yes	
Recall Mode		Min		None						Min	Min	
Act Effct Green (s)		16.4			21.7						11.2	
Actuated g/C Ratio		0.39			0.51						0.26	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.35			0.61						0.39	
Uniform Delay, d1		4.5			4.9						8.7	
Delay		4.6			5.6						10.3	
LOS		A			A						B	
Approach Delay		4.6			5.6						10.3	
Approach LOS		A			A						B	

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 42.5
Natural Cycle: 40
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 6.7 Intersection LOS: A
Intersection Capacity Utilization 57.1% ICU Level of Service A

Splits and Phases: 26: Court Street & Pearl Street

ø1	ø2	ø3
28 s	8 s	34 s

Section 5-2
ETC / No Build / AM Peak

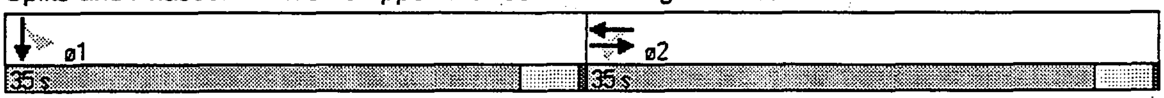
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.907									0.952	
Flt Protected					0.991						0.998	
Satd. Flow (prot)	0	1512	0	0	1675	0	0	0	0	0	3067	0
Flt Permitted					0.823						0.998	
Satd. Flow (perm)	0	1512	0	0	1391	0	0	0	0	0	3067	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		210									149	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	66	184	86	484	0	0	0	0	16	355	166
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.75	0.94	0.67	0.88	0.25	0.25	0.25	0.25	0.67	0.89	0.83
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	6%	1%	2%	1%	0%	0%	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	96	213	140	600	0	0	0	0	26	435	218
Lane Group Flow (vph)	0	309	0	0	740	0	0	0	0	0	679	0
Turn Type				Perm						Perm		
Protected Phases		2			2						1	
Permitted Phases				2						1		
Detector Phases		2		2	2					1	1	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					8.0	8.0	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	35.0	35.0	0.0
Total Split (%)	0%	50%	0%	50%	50%	0%	0%	0%	0%	50%	50%	0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lead/Lag		Lag		Lag	Lag					Lead	Lead	
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0						32.0	
Actuated g/C Ratio		0.46			0.46						0.46	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.38			1.16						0.46	
Uniform Delay, d1		3.6			19.0						9.8	
Delay		4.4			97.6						10.1	
LOS		A			F						B	
Approach Delay		4.4			97.6						10.1	
Approach LOS		A			F						B	

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 8 (11%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 40
Control Type: Pretimed
Maximum v/c Ratio: 1.16
Intersection Signal Delay: 46.6 Intersection LOS: D
Intersection Capacity Utilization 95.8% ICU Level of Service E

Splits and Phases: 11: E. Chippewa Street & Washington Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.988			0.946			0.990			0.986	
Flt Protected		0.989			0.992			0.997			0.995	
Satd. Flow (prot)	0	1604	0	0	1552	0	0	1457	0	0	1554	0
Flt Permitted		0.899			0.937			0.997			0.971	
Satd. Flow (perm)	0	1458	0	0	1466	0	0	1457	0	0	1517	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			71			9			4	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	18	103	5	33	92	71	16	247	15	1	21	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.45	0.78	0.31	0.83	0.79	0.68	0.80	0.88	0.63	0.25	0.75	0.25
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	6%	0%	0%	4%	4%	50%	13%	20%	0%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	44	144	18	43	127	114	22	306	26	4	31	4
Lane Group Flow (vph)	0	206	0	0	284	0	0	354	0	0	39	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1	1		1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	49%	49%	0%	49%	49%	0%	51%	51%	0%	51%	51%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			28.0			28.0	
Actuated g/C Ratio		0.44			0.44			0.46			0.46	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.32			0.41			0.53			0.06	
Uniform Delay, d1		10.4			8.4			11.4			8.2	
Delay		10.9			8.9			12.1			8.7	
LOS		B			A			B			A	
Approach Delay		10.9			8.9			12.1			8.7	
Approach LOS		B			A			B			A	

Intersection Summary

Area Type: CBD
Cycle Length: 61
Actuated Cycle Length: 61
Offset: 20 (33%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 10.6 Intersection LOS: B
Intersection Capacity Utilization 67.7% ICU Level of Service B

Splits and Phases: 6: E. Huron Street & Ellicott Street

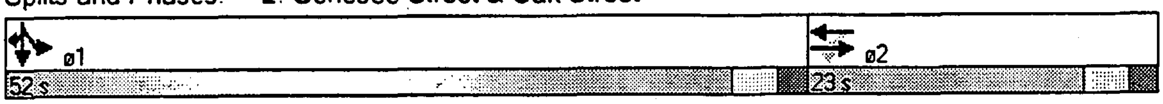
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	50
Trailing Detector (ft)		0		0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.953										0.850
Flt Protected					0.990						0.999	
Satd. Flow (prot)	0	2740	0	0	3191	0	0	0	0	0	4617	1439
Flt Permitted					0.990						0.999	
Satd. Flow (perm)	0	2740	0	0	3191	0	0	0	0	0	4617	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1										113
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	126	35	75	357	0	0	0	0	42	2723	518
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.81	0.49	0.72	0.85	0.25	0.25	0.25	0.25	0.75	0.88	0.88
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	2%	37%	0%	1%	0%	0%	0%	0%	2%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	170	78	114	458	0	0	0	0	61	3373	642
Lane Group Flow (vph)	0	248	0	0	572	0	0	0	0	0	3434	642
Turn Type				Perm						Split		Prot
Protected Phases		2			2					1	1	1
Permitted Phases				2	2							
Detector Phases		2		2	2					1	1	1
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	21.0
Total Split (s)	0.0	23.0	0.0	23.0	23.0	0.0	0.0	0.0	0.0	52.0	52.0	52.0
Total Split (%)	0%	31%	0%	31%	31%	0%	0%	0%	0%	69%	69%	69%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	2.0
Lead/Lag		Lag		Lag	Lag					Lead	Lead	Lead
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	Yes
Recall Mode		Max		Max	Max					Max	Max	Max
Act Effct Green (s)		20.0			20.0						49.0	49.0
Actuated g/C Ratio		0.27			0.27						0.65	0.65

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.34			0.67						1.14	0.66
Uniform Delay, d1		22.1			24.6						13.0	6.2
Delay		22.4			25.0						76.2	6.8
LOS		C			C						E	A
Approach Delay		22.4			25.0						65.2	
Approach LOS		C			C						E	

Intersection Summary

Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 20 (27%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 90
Control Type: Pretimed
Maximum v/c Ratio: 1.14
Intersection Signal Delay: 58.4 Intersection LOS: E
Intersection Capacity Utilization 109.5% ICU Level of Service F

Splits and Phases: 2: Genesee Street & Oak Street



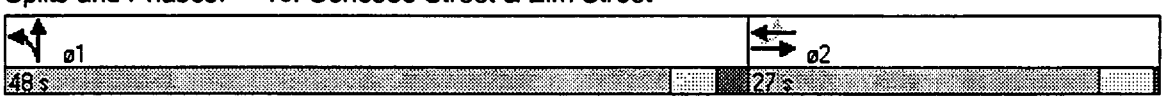
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.86	0.86	0.86	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.995			0.987				
Flt Protected		0.975						0.991				
Satd. Flow (prot)	0	2979	0	0	3056	0	0	5537	0	0	0	0
Flt Permitted		0.726						0.991				
Satd. Flow (perm)	0	2218	0	0	3056	0	0	5537	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			49				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	73	80	0	0	194	5	270	1398	128	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.91	0.74	0.25	0.82	0.63	0.75	0.91	0.74	0.25	0.25	0.25
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	13%	0%	0%	6%	0%	3%	4%	5%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	101	96	0	0	258	9	392	1675	189	0	0	0
Lane Group Flow (vph)	0	197	0	0	267	0	0	2256	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		2			2		1	1				
Permitted Phases	2											
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.0	20.0			20.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	48.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	36%	36%	0%	0%	36%	0%	64%	64%	0%	0%	0%	0%
Yellow Time (s)	3.5	3.5			3.5		3.0	3.0				
All-Red Time (s)	0.5	0.5			0.5		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			45.0				
Actuated g/C Ratio		0.32			0.32			0.60				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.28			0.27			0.68				
Uniform Delay, d1		19.0			18.6			9.8				
Delay		19.4			18.9			10.0				
LOS		B			B			A				
Approach Delay		19.4			18.9			10.0				
Approach LOS		B			B			A				

Intersection Summary

Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 48 (64%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 11.5 Intersection LOS: B
Intersection Capacity Utilization 61.5% ICU Level of Service B

Splits and Phases: 16: Genesee Street & Elm Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<↑>			<↑>			<↑>			<↑>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.933			0.937			0.980			0.988	
Flt Protected		0.989			0.987			0.992			0.991	
Satd. Flow (prot)	0	2750	0	0	2683	0	0	2612	0	0	3005	0
Flt Permitted		0.906			0.889			0.894			0.890	
Satd. Flow (perm)	0	2520	0	0	2417	0	0	2354	0	0	2698	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			48			13			24	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	15	15	17	20	21	27	13	61	8	49	225	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.63	0.53	0.71	0.66	0.61	0.81	0.95	0.67	0.77	0.89	0.96
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	27%	0%	5%	14%	15%	38%	16%	25%	8%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	17	26	35	31	35	48	17	70	13	69	276	31
Lane Group Flow (vph)	0	78	0	0	114	0	0	100	0	0	376	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		27.0	27.0		27.0	27.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Act Effct Green (s)		12.1			12.1			30.1			30.1	
Actuated g/C Ratio		0.24			0.24			0.62			0.62	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.12			0.19			0.07			0.23	
Uniform Delay, d1		7.6			8.0			2.7			3.2	
Delay		4.5			4.4			3.5			3.7	
LOS		A			A			A			A	
Approach Delay		4.5			4.4			3.5			3.7	
Approach LOS		A			A			A			A	

Intersection Summary
Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 48.8
Natural Cycle: 50
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.23
Intersection Signal Delay: 3.9 Intersection LOS: A
Intersection Capacity Utilization 25.5% ICU Level of Service A

Splits and Phases: 46: Scott Street & Washington Street

ø1	ø2
35 s	25 s

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		↰	↱
Sign Control		Stop	Stop		Stop	
Volume (veh/h)	17	6	5	161	166	8
Peak Hour Factor	0.61	0.75	0.25	0.88	0.85	1.00
Hourly flow rate (veh/h)	30	9	22	199	213	9

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	33	6	15	207	213	9
Volume Left (vph)	30	0	0	0	213	0
Volume Right (vph)	0	0	0	199	0	9
Hadj (s)	0.3	0.0	0.7	-0.2	0.5	-0.4
Departure Headway (s)	5.6	5.3	5.8	4.9	5.6	4.8
Degree Utilization, x	0.05	0.01	0.02	0.28	0.33	0.01
Capacity (veh/h)	606	639	485	582	631	739
Control Delay (s)	7.7	7.2	7.7	8.7	10.2	6.6
Approach Delay (s)	7.6		8.6		10.1	
Approach LOS	A		A		B	

Intersection Summary			
Delay	9.2		
HCM Level of Service	A		
Intersection Capacity Utilization	27.6%	ICU Level of Service	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.906			0.910			0.993			0.983	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1710	1361	0	1221	1473	0	1593	1641	0	1464	1544	0
Flt Permitted				0.734			0.631			0.342		
Satd. Flow (perm)	1710	1361	0	944	1473	0	1058	1641	0	527	1544	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			144			7			17	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	8	9	12	83	164	90	373	15	47	129	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.67	0.45	0.75	0.67	0.87	0.87	0.81	0.63	0.78	0.83	0.50
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	0%	22%	33%	2%	8%	2%	3%	13%	11%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	13	22	17	135	205	113	502	26	66	169	22
Lane Group Flow (vph)	0	35	0	17	340	0	113	528	0	66	191	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	9.0		9.0	9.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		22.0		22.0	22.0		32.0	32.0		32.0	32.0	
Actuated g/C Ratio		0.37		0.37	0.37		0.53	0.53		0.53	0.53	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.07		0.05	0.54		0.20	0.60		0.23	0.23	
Uniform Delay, d1		4.5		12.2	8.1		7.3	9.5		7.5	6.7	
Delay		7.7		12.6	8.8		7.7	10.1		8.3	7.0	
LOS		A		B	A		A	B		A	A	
Approach Delay		7.7			9.0			9.6			7.3	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 8.9 Intersection LOS: A
Intersection Capacity Utilization 67.0% ICU Level of Service B

Splits and Phases: 36: South Park Ave & Michigan Ave

ø1	ø2
35 s	25 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱						↑↱			↰↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.982						0.994				
Flt Protected		0.992									0.993	
Satd. Flow (prot)	0	3142	0	0	0	0	0	1637	0	0	3115	0
Flt Permitted		0.992									0.993	
Satd. Flow (perm)	0	3142	0	0	0	0	0	1637	0	0	3115	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24						6				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	70	364	42	0	0	0	0	134	4	91	543	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.87	0.62	0.90	0.90	0.90	0.90	0.70	0.50	0.95	0.96	0.90
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	4%	0%	13%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	95	456	74	0	0	0	0	209	9	104	617	0
Lane Group Flow (vph)	0	625	0	0	0	0	0	218	0	0	721	0
Turn Type	Perm									Perm		
Protected Phases		2						1			1	
Permitted Phases	2	2								1	1	
Detector Phases	2	2						1		1	1	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0						21.0		21.0	21.0	
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38%	38%	0%	0%	0%	0%	0%	62%	0%	62%	62%	0%
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lead/Lag	Lag	Lag						Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes						Yes		Yes	Yes	
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		22.0						37.0			37.0	
Actuated g/C Ratio		0.34						0.57			0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.58						0.23			0.41	
Uniform Delay, d1		16.9						6.7			7.8	
Delay		17.3						7.0			8.0	
LOS		B						A			A	
Approach Delay		17.3						7.0			8.0	
Approach LOS		B						A			A	

Intersection Summary

Area Type: CBD

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 11.6 Intersection LOS: B

Intersection Capacity Utilization 64.8% ICU Level of Service B

Splits and Phases: 31: W.Huron St. & Elmwood Ave

ø1	ø2
40 s	25 s

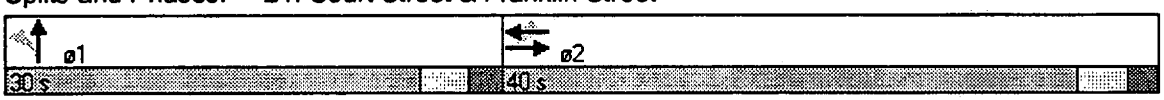
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.963			0.970				
Flt Protected		0.998						0.995				
Satd. Flow (prot)	0	2789	0	0	2980	0	0	2882	0	0	0	0
Flt Permitted		0.926						0.995				
Satd. Flow (perm)	0	2588	0	0	2980	0	0	2882	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					98			51				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	7	245	0	0	365	118	25	261	69	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.50	0.81	0.90	0.90	0.86	0.84	0.50	0.82	0.75	0.90	0.90	0.90
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	17%	0%	0%	5%	5%	44%	3%	10%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	15	330	0	0	463	153	54	347	100	0	0	0
Lane Group Flow (vph)	0	345	0	0	616	0	0	501	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		2			2			1				
Permitted Phases	2				2		1					
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0
Total Split (%)	57%	57%	0%	0%	57%	0%	43%	43%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		37.0			37.0			27.0				
Actuated g/C Ratio		0.53			0.53			0.39				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.25			0.38			0.44				
Uniform Delay, d1		9.0			8.0			14.1				
Delay		9.1			8.2			14.4				
LOS		A			A			B				
Approach Delay		9.1			8.2			14.4				
Approach LOS		A			A			B				

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.44
Intersection Signal Delay: 10.5 Intersection LOS: B
Intersection Capacity Utilization 42.3% ICU Level of Service A

Splits and Phases: 21: Court Street & Franklin Street



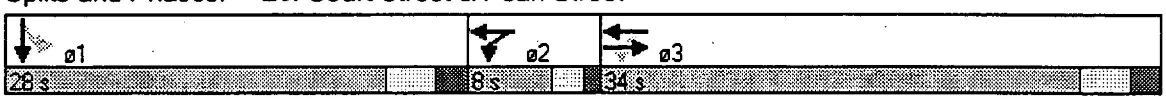
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Ped Bike Factor												
Frt		0.931									0.957	
Flt Protected					0.986						0.995	
Satd. Flow (prot)	0	2712	0	0	3076	0	0	0	0	0	4123	0
Flt Permitted					0.684						0.995	
Satd. Flow (perm)	0	2712	0	0	2134	0	0	0	0	0	4123	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		206									145	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	182	168	194	449	0	0	0	0	24	230	73
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.83	0.89	0.92	0.84	0.90	0.90	0.90	0.90	0.50	0.82	0.55
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	12%	11%	2%	5%	0%	0%	0%	0%	8%	11%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	239	206	230	583	0	0	0	0	52	306	145
Lane Group Flow (vph)	0	445	0	0	813	0	0	0	0	0	503	0
Turn Type				D.P+P						Perm		
Protected Phases		3		2	2 3						1	
Permitted Phases				3						1		
Detector Phases		3		2	2 3					1	1	
Minimum Initial (s)		4.0		4.0						4.0	4.0	
Minimum Split (s)		21.0		8.0						9.0	9.0	
Total Split (s)	0.0	34.0	0.0	8.0	42.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0
Total Split (%)	0%	49%	0%	11%	60%	0%	0%	0%	0%	40%	40%	0%
Yellow Time (s)		3.0		2.0						3.0	3.0	
All-Red Time (s)		2.0		1.0						2.0	2.0	
Lead/Lag				Lag						Lead	Lead	
Lead-Lag Optimize?				Yes						Yes	Yes	
Recall Mode		Min		None						Min	Min	
Act Effct Green (s)		18.3			23.6						11.7	
Actuated g/C Ratio		0.41			0.53						0.26	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.36			0.66						0.43	
Uniform Delay, d1		4.5			5.3						9.4	
Delay		4.6			6.1						10.9	
LOS		A			A						B	
Approach Delay		4.6			6.1						10.9	
Approach LOS		A			A						B	

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 44.9
Natural Cycle: 40
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 7.1 Intersection LOS: A
Intersection Capacity Utilization 61.3% ICU Level of Service B

Splits and Phases: 26: Court Street & Pearl Street



Section 5-3
ETC + 5 / No Build / AM Peak

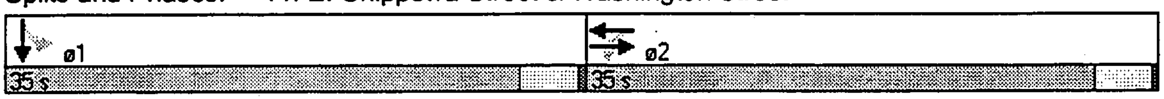
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.907									0.952	
Flt Protected					0.991						0.998	
Satd. Flow (prot)	0	1512	0	0	1675	0	0	0	0	0	3067	0
Flt Permitted					0.782						0.998	
Satd. Flow (perm)	0	1512	0	0	1322	0	0	0	0	0	3067	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		210									148	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	66	184	86	484	0	0	0	0	16	355	166
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.75	0.94	0.67	0.88	0.25	0.25	0.25	0.25	0.67	0.89	0.83
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	6%	1%	2%	1%	0%	0%	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	104	231	151	649	0	0	0	0	28	471	236
Lane Group Flow (vph)	0	335	0	0	800	0	0	0	0	0	735	0
Turn Type				Perm						Perm		
Protected Phases		2			2						1	
Permitted Phases				2						1		
Detector Phases		2		2	2					1	1	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					8.0	8.0	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	35.0	35.0	0.0
Total Split (%)	0%	50%	0%	50%	50%	0%	0%	0%	0%	50%	50%	0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lead/Lag		Lag		Lag	Lag					Lead	Lead	
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0						32.0	
Actuated g/C Ratio		0.46			0.46						0.46	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.42			1.32						0.50	
Uniform Delay, d1		4.3			19.0						10.3	
Delay		4.9			143.4						10.6	
LOS		A			F						B	
Approach Delay		4.9			143.4						10.6	
Approach LOS		A			F						B	

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 8 (11%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 1.32
Intersection Signal Delay: 66.4 Intersection LOS: E
Intersection Capacity Utilization 102.9% ICU Level of Service F

Splits and Phases: 11: E. Chippewa Street & Washington Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.988			0.946			0.990			0.984	
Flt Protected		0.990			0.992			0.997			0.994	
Satd. Flow (prot)	0	1605	0	0	1552	0	0	1457	0	0	1553	0
Flt Permitted		0.893			0.932			0.997			0.964	
Satd. Flow (perm)	0	1448	0	0	1458	0	0	1457	0	0	1506	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			71			9			5	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	18	103	5	33	92	71	16	247	15	1	21	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.45	0.78	0.31	0.83	0.79	0.68	0.80	0.88	0.63	0.25	0.75	0.25
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	6%	0%	0%	4%	4%	50%	13%	20%	0%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	47	156	19	47	137	123	24	331	28	5	33	5
Lane Group Flow (vph)	0	222	0	0	307	0	0	383	0	0	43	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1	1		1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	49%	49%	0%	49%	49%	0%	51%	51%	0%	51%	51%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			28.0			28.0	
Actuated g/C Ratio		0.44			0.44			0.46			0.46	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.34			0.45			0.57			0.06	
Uniform Delay, d1		10.6			8.8			11.7			8.1	
Delay		11.1			9.3			12.5			8.6	
LOS		B			A			B			A	
Approach Delay		11.1			9.3			12.5			8.6	
Approach LOS		B			A			B			A	

Intersection Summary

Area Type: CBD

Cycle Length: 61

Actuated Cycle Length: 61

Offset: 20 (33%), Referenced to phase 2:EBWB, Start of Green

Natural Cycle: 45

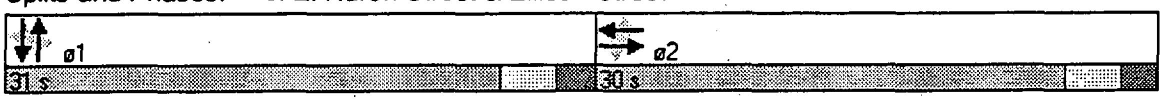
Control Type: Pretimed

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 11.0 Intersection LOS: B

Intersection Capacity Utilization 72.0% ICU Level of Service C

Splits and Phases: 6: E. Huron Street & Ellicott Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	50
Trailing Detector (ft)		0		0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.953										0.850
Flt Protected					0.990						0.999	
Satd. Flow (prot)	0	2741	0	0	3191	0	0	0	0	0	4617	1439
Flt Permitted					0.990						0.999	
Satd. Flow (perm)	0	2741	0	0	3191	0	0	0	0	0	4617	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												92
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	126	35	75	357	0	0	0	0	42	2723	518
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.81	0.49	0.72	0.85	0.25	0.25	0.25	0.25	0.75	0.88	0.88
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	2%	37%	0%	1%	0%	0%	0%	0%	2%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	184	84	123	496	0	0	0	0	66	3651	695
Lane Group Flow (vph)	0	268	0	0	619	0	0	0	0	0	3717	695
Turn Type				Perm						Split		Prot
Protected Phases		2			2					1	1	1
Permitted Phases				2	2							
Detector Phases		2		2	2					1	1	1
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	21.0
Total Split (s)	0.0	23.0	0.0	23.0	23.0	0.0	0.0	0.0	0.0	52.0	52.0	52.0
Total Split (%)	0%	31%	0%	31%	31%	0%	0%	0%	0%	69%	69%	69%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	2.0
Lead/Lag		Lag		Lag	Lag					Lead	Lead	Lead
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	Yes
Recall Mode		Max		Max	Max					Max	Max	Max
Act Effct Green (s)		20.0			20.0						49.0	49.0
Actuated g/C Ratio		0.27			0.27						0.65	0.65

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.37			0.73						1.23	0.72
Uniform Delay, d1		22.3			25.0						13.0	7.1
Delay		22.7			25.5						109.1	7.9
LOS		C			C						F	A
Approach Delay		22.7			25.5						93.2	
Approach LOS		C			C						F	

Intersection Summary

Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 20 (27%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 140
Control Type: Pretimed
Maximum v/c Ratio: 1.23
Intersection Signal Delay: 81.7 Intersection LOS: F
Intersection Capacity Utilization 117.7% ICU Level of Service G

Splits and Phases: 2: Genesee Street & Oak Street

ø1 52 s
ø2 23 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↑↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.86	0.86	0.86	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.995			0.987				
Flt Protected		0.975						0.991				
Satd. Flow (prot)	0	2979	0	0	3055	0	0	5537	0	0	0	0
Flt Permitted		0.715						0.991				
Satd. Flow (perm)	0	2184	0	0	3055	0	0	5537	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			48				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	73	80	0	0	194	5	270	1398	128	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.91	0.74	0.25	0.82	0.63	0.75	0.91	0.74	0.25	0.25	0.25
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	13%	0%	0%	6%	0%	3%	4%	5%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	109	104	0	0	279	9	425	1813	204	0	0	0
Lane Group Flow (vph)	0	213	0	0	288	0	0	2442	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		2			2		1	1				
Permitted Phases	2											
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.0	20.0			20.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	48.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	36%	36%	0%	0%	36%	0%	64%	64%	0%	0%	0%	0%
Yellow Time (s)	3.5	3.5			3.5		3.0	3.0				
All-Red Time (s)	0.5	0.5			0.5		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			45.0				
Actuated g/C Ratio		0.32			0.32			0.60				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.30			0.29			0.73				
Uniform Delay, d1		19.2			18.8			10.4				
Delay		19.6			19.1			10.6				
LOS		B			B			B				
Approach Delay		19.6			19.1			10.6				
Approach LOS		B			B			B				

Intersection Summary

Area Type: CBD

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 48 (64%), Referenced to phase 2:EBWB, Start of Green

Natural Cycle: 50

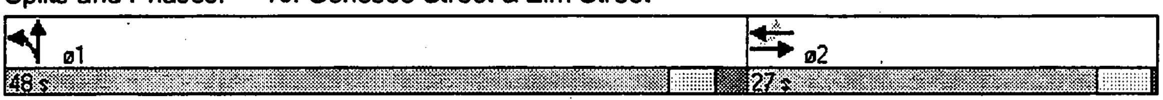
Control Type: Pretimed

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 12.1 Intersection LOS: B

Intersection Capacity Utilization 65.8% ICU Level of Service B

Splits and Phases: 16: Genesee Street & Elm Street



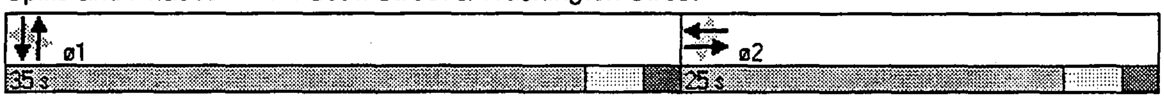
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰↑↱			↰↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.933			0.937			0.981			0.988	
Flt Protected		0.989			0.987			0.991			0.991	
Satd. Flow (prot)	0	2753	0	0	2683	0	0	2611	0	0	3004	0
Flt Permitted		0.902			0.887			0.887			0.886	
Satd. Flow (perm)	0	2511	0	0	2411	0	0	2337	0	0	2686	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			52			14			23	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	15	15	17	20	21	27	13	61	8	49	225	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.63	0.53	0.71	0.66	0.61	0.81	0.95	0.67	0.77	0.89	0.96
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	27%	0%	5%	14%	15%	38%	16%	25%	8%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	19	28	38	33	38	52	19	76	14	75	298	33
Lane Group Flow (vph)	0	85	0	0	123	0	0	109	0	0	406	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		27.0	27.0		27.0	27.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Act Effct Green (s)		12.3			12.3			29.6			29.6	
Actuated g/C Ratio		0.24			0.24			0.61			0.61	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.13			0.20			0.08			0.25	
Uniform Delay, d1		7.4			7.9			2.8			3.3	
Delay		4.5			4.5			3.5			3.8	
LOS		A			A			A			A	
Approach Delay		4.5			4.5			3.5			3.8	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 48.5
Natural Cycle: 50
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.25
Intersection Signal Delay: 4.0 Intersection LOS: A
Intersection Capacity Utilization 26.9% ICU Level of Service A

Splits and Phases: 46: Scott Street & Washington Street



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (veh/h)	17	6	5	161	166	8
Peak Hour Factor	0.61	0.75	0.25	0.88	0.85	1.00
Hourly flow rate (veh/h)	33	9	24	216	230	9

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	36	6	16	224	230	9
Volume Left (vph)	33	0	0	0	230	0
Volume Right (vph)	0	0	0	216	0	9
Hadj (s)	0.3	0.0	0.7	-0.2	0.5	-0.4
Departure Headway (s)	5.7	5.4	5.8	5.0	5.7	4.8
Degree Utilization, x	0.06	0.01	0.03	0.31	0.36	0.01
Capacity (veh/h)	595	627	482	581	625	730
Control Delay (s)	7.8	7.3	7.8	9.0	10.7	6.7
Approach Delay (s)	7.8		8.9		10.5	
Approach LOS	A		A		B	

Intersection Summary			
Delay	9.6		
HCM Level of Service	A		
Intersection Capacity Utilization	29.4%	ICU Level of Service	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.905			0.910			0.993			0.983	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1710	1359	0	1221	1473	0	1593	1641	0	1464	1544	0
Flt Permitted				0.732			0.616			0.309		
Satd. Flow (perm)	1710	1359	0	941	1473	0	1033	1641	0	476	1544	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			144			7			17	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	8	9	12	83	164	90	373	15	47	129	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.67	0.45	0.75	0.67	0.87	0.87	0.81	0.63	0.78	0.83	0.50
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	0%	22%	33%	2%	8%	2%	3%	13%	11%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	14	24	19	146	222	122	543	28	71	183	24
Lane Group Flow (vph)	0	38	0	19	368	0	122	571	0	71	207	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	9.0		9.0	9.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		22.0		22.0	22.0		32.0	32.0		32.0	32.0	
Actuated g/C Ratio		0.37		0.37	0.37		0.53	0.53		0.53	0.53	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.07		0.06	0.58		0.22	0.65		0.28	0.25	
Uniform Delay, d1		4.5		12.3	8.8		7.4	9.8		7.7	6.8	
Delay		7.5		12.6	9.5		7.8	10.5		8.7	7.1	
LOS		A		B	A		A	B		A	A	
Approach Delay		7.5			9.7			10.1			7.5	
Approach LOS		A			A			B			A	

Intersection Summary

Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 50
Control Type: Pretimed
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 9.4 Intersection LOS: A
Intersection Capacity Utilization 71.7% ICU Level of Service C

Splits and Phases: 36: South Park Ave & Michigan Ave

ø1	ø2
35 s	25 s

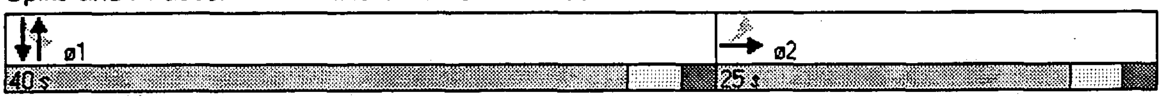
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↑↱						↑↱			↰↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.982						0.995				
Flt Protected		0.992									0.993	
Satd. Flow (prot)	0	3142	0	0	0	0	0	1638	0	0	3114	0
Flt Permitted		0.992									0.993	
Satd. Flow (perm)	0	3142	0	0	0	0	0	1638	0	0	3114	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24						5				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	70	364	42	0	0	0	0	134	4	91	543	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.87	0.62	0.90	0.90	0.90	0.90	0.70	0.50	0.95	0.96	0.90
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	4%	0%	13%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	103	494	80	0	0	0	0	226	9	113	667	0
Lane Group Flow (vph)	0	677	0	0	0	0	0	235	0	0	780	0
Turn Type	Perm									Perm		
Protected Phases		2						1			1	
Permitted Phases	2	2								1	1	
Detector Phases	2	2						1		1	1	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0						21.0		21.0	21.0	
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38%	38%	0%	0%	0%	0%	0%	62%	0%	62%	62%	0%
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lead/Lag	Lag	Lag						Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes						Yes		Yes	Yes	
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		22.0						37.0			37.0	
Actuated g/C Ratio		0.34						0.57			0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.63						0.25			0.44	
Uniform Delay, d1		17.3						6.9			8.0	
Delay		17.7						7.1			8.2	
LOS		B						A			A	
Approach Delay		17.7						7.1			8.2	
Approach LOS		B						A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 11.9 Intersection LOS: B
Intersection Capacity Utilization 69.3% ICU Level of Service B

Splits and Phases: 31: W.Huron St. & Elmwood Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.963			0.970				
Flt Protected		0.998						0.995				
Satd. Flow (prot)	0	2790	0	0	2980	0	0	2881	0	0	0	0
Flt Permitted		0.921						0.995				
Satd. Flow (perm)	0	2575	0	0	2980	0	0	2881	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					98			52				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	7	245	0	0	365	118	25	261	69	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.50	0.81	0.90	0.90	0.86	0.84	0.50	0.82	0.75	0.90	0.90	0.90
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	17%	0%	0%	5%	5%	44%	3%	10%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	17	357	0	0	501	166	59	376	109	0	0	0
Lane Group Flow (vph)	0	374	0	0	667	0	0	544	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		2			2			1				
Permitted Phases	2				2		1					
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0
Total Split (%)	57%	57%	0%	0%	57%	0%	43%	43%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		37.0			37.0			27.0				
Actuated g/C Ratio		0.53			0.53			0.39				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.27			0.41			0.48				
Uniform Delay, d1		9.1			8.3			14.4				
Delay		9.3			8.5			14.8				
LOS		A			A			B				
Approach Delay		9.3			8.5			14.8				
Approach LOS		A			A			B				

Intersection Summary

Area Type: CBD

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green

Natural Cycle: 45

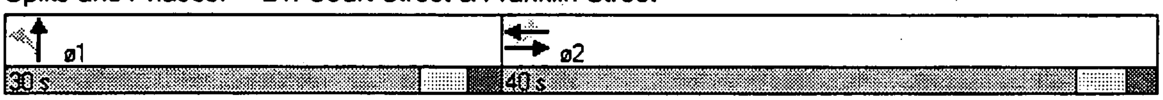
Control Type: Pretimed

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 10.8 Intersection LOS: B

Intersection Capacity Utilization 45.2% ICU Level of Service A

Splits and Phases: 21: Court Street & Franklin Street



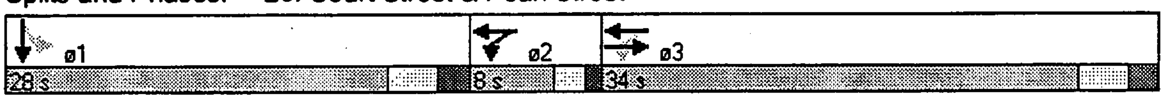
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Ped Bike Factor												
Frt		0.931									0.957	
Flt Protected					0.986						0.995	
Satd. Flow (prot)	0	2712	0	0	3076	0	0	0	0	0	4123	0
Flt Permitted					0.668						0.995	
Satd. Flow (perm)	0	2712	0	0	2084	0	0	0	0	0	4123	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		223									157	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	182	168	194	449	0	0	0	0	24	230	73
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.83	0.89	0.92	0.84	0.90	0.90	0.90	0.90	0.50	0.82	0.55
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	12%	11%	2%	5%	0%	0%	0%	0%	8%	11%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	259	223	249	631	0	0	0	0	57	331	157
Lane Group Flow (vph)	0	482	0	0	880	0	0	0	0	0	545	0
Turn Type				D.P+P						Perm		
Protected Phases		3		2	2 3						1	
Permitted Phases				3						1		
Detector Phases		3		2	2 3					1	1	
Minimum Initial (s)		4.0		4.0						4.0	4.0	
Minimum Split (s)		21.0		8.0						9.0	9.0	
Total Split (s)	0.0	34.0	0.0	8.0	42.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0
Total Split (%)	0%	49%	0%	11%	60%	0%	0%	0%	0%	40%	40%	0%
Yellow Time (s)		3.0		2.0						3.0	3.0	
All-Red Time (s)		2.0		1.0						2.0	2.0	
Lead/Lag				Lag						Lead	Lead	
Lead-Lag Optimize?				Yes						Yes	Yes	
Recall Mode		Min		None						Min	Min	
Act Effct Green (s)		20.9			26.2						12.5	
Actuated g/C Ratio		0.43			0.54						0.26	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.37			0.71						0.46	
Uniform Delay, d1		4.5			5.8						10.2	
Delay		4.6			6.8						11.7	
LOS		A			A						B	
Approach Delay		4.6			6.8						11.7	
Approach LOS		A			A						B	

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 48.4
Natural Cycle: 40
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 7.6 Intersection LOS: A
Intersection Capacity Utilization 65.6% ICU Level of Service B

Splits and Phases: 26: Court Street & Pearl Street



Section 5-4
Existing / No Build / PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.927									0.935	
Flt Protected					0.987						0.996	
Satd. Flow (prot)	0	1543	0	0	1671	0	0	0	0	0	3011	0
Flt Permitted					0.822						0.996	
Satd. Flow (perm)	0	1543	0	0	1392	0	0	0	0	0	3011	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		113									251	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	124	127	79	258	0	0	0	0	31	276	143
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.84	0.72	0.76	0.88	0.25	0.25	0.25	0.25	0.60	1.00	0.57
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	6%	0%	1%	1%	0%	0%	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	148	176	104	293	0	0	0	0	52	276	251
Lane Group Flow (vph)	0	324	0	0	397	0	0	0	0	0	579	0
Turn Type				Perm						Perm		
Protected Phases		2			2						1	
Permitted Phases				2						1		
Detector Phases		2		2	2					1	1	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	35.0	35.0	0.0
Total Split (%)	0%	50%	0%	50%	50%	0%	0%	0%	0%	50%	50%	0%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	
Lead/Lag		Lag		Lag	Lag					Lead	Lead	
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0						32.0	
Actuated g/C Ratio		0.46			0.46						0.46	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.42			0.62						0.38	
Uniform Delay, d1		7.9			14.4						6.6	
Delay		8.3			15.2						6.8	
LOS		A			B						A	
Approach Delay		8.3			15.2						6.8	
Approach LOS		A			B						A	

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 9.8 Intersection LOS: A
Intersection Capacity Utilization 73.3% ICU Level of Service C

Splits and Phases: 11: E. Chippewa Street & Washington Street

ø1	ø2
35 s	35 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.990			0.938			0.978				
Flt Protected		0.994			0.996			0.997			0.980	
Satd. Flow (prot)	0	1669	0	0	1562	0	0	1575	0	0	1647	0
Flt Permitted		0.969			0.983			0.997			0.793	
Satd. Flow (perm)	0	1627	0	0	1541	0	0	1575	0	0	1333	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			24			21				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	13	151	9	1	19	14	13	294	45	23	38	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.46	0.86	0.56	0.25	0.79	0.58	0.46	0.86	0.63	0.58	0.68	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	5%	0%	46%	3%	4%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	28	176	16	4	24	24	28	342	71	40	56	0
Lane Group Flow (vph)	0	220	0	0	52	0	0	441	0	0	96	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1	1		1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		21.0	21.0		21.0	21.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	49%	49%	0%	49%	49%	0%	51%	51%	0%	51%	51%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			28.0			28.0	
Actuated g/C Ratio		0.44			0.44			0.46			0.46	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.30			0.07			0.60			0.16	
Uniform Delay, d1		10.5			5.2			11.6			9.6	
Delay		10.9			6.6			12.3			10.0	
LOS		B			A			B			A	
Approach Delay		10.9			6.6			12.3			10.0	
Approach LOS		B			A			B			A	

Intersection Summary

Area Type: CBD
Cycle Length: 61
Actuated Cycle Length: 61
Offset: 35 (57%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 40
Control Type: Pretimed
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 11.3 Intersection LOS: B
Intersection Capacity Utilization 59.6% ICU Level of Service A

Splits and Phases: 6: E. Huron Street & Ellicott Street

ø1	ø2
31 s	30 s

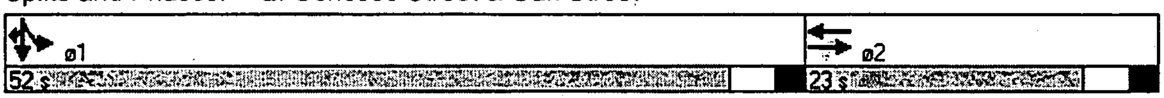
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↰↑						↰↑↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	50
Trailing Detector (ft)		0		0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.972										0.850
Flt Protected					0.985						0.999	
Satd. Flow (prot)	0	3059	0	0	3157	0	0	0	0	0	4573	1439
Flt Permitted					0.985						0.999	
Satd. Flow (perm)	0	3059	0	0	3157	0	0	0	0	0	4573	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15										173
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	499	103	46	108	0	0	0	0	22	1754	135
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.83	0.74	0.82	0.87	0.25	0.25	0.25	0.25	0.92	0.86	0.78
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	13%	0%	2%	0%	0%	0%	0%	0%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	601	139	56	124	0	0	0	0	24	2040	173
Lane Group Flow (vph)	0	740	0	0	180	0	0	0	0	0	2064	173
Turn Type				Perm						Split		Prot
Protected Phases		2			2					1	1	1
Permitted Phases				2	2							
Detector Phases		2		2	2					1	1	1
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	21.0
Total Split (s)	0.0	23.0	0.0	23.0	23.0	0.0	0.0	0.0	0.0	52.0	52.0	52.0
Total Split (%)	0%	31%	0%	31%	31%	0%	0%	0%	0%	69%	69%	69%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	2.0
Lead/Lag		Lag		Lag	Lag					Lead	Lead	Lead
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	Yes
Recall Mode		Max		Max	Max					Max	Max	Max
Act Effct Green (s)		20.0			20.0						49.0	49.0
Actuated g/C Ratio		0.27			0.27						0.65	0.65

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.89			0.21						0.69	0.17
Uniform Delay, d1		25.9			21.4						8.2	0.0
Delay		34.3			21.6						8.4	0.9
LOS		C			C						A	A
Approach Delay		34.3			21.6						7.9	
Approach LOS		C			C						A	

Intersection Summary

Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 20 (27%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 55
Control Type: Pretimed
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 14.8 Intersection LOS: B
Intersection Capacity Utilization 74.4% ICU Level of Service C

Splits and Phases: 2: Genesee Street & Oak Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↑			↑↑↱			↰↑↑↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.86	0.86	0.86	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.975			0.996				
Flt Protected		0.968						0.998				
Satd. Flow (prot)	0	3123	0	0	2993	0	0	5695	0	0	0	0
Flt Permitted		0.727						0.998				
Satd. Flow (perm)	0	2346	0	0	2993	0	0	5695	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					15			11				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	361	179	0	0	74	13	47	1582	32	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.73	0.25	0.25	0.74	0.65	0.78	0.84	0.67	0.25	0.25	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	0%	7%	0%	21%	2%	6%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	463	245	0	0	100	20	60	1883	48	0	0	0
Lane Group Flow (vph)	0	708	0	0	120	0	0	1991	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		2			2		1	1				
Permitted Phases	2											
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	48.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	36%	36%	0%	0%	36%	0%	64%	64%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			45.0				
Actuated g/C Ratio		0.32			0.32			0.60				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		1.25dl			0.12			0.58				
Uniform Delay, d1		24.8			15.7			9.1				
Delay		40.8			16.0			9.3				
LOS		D			B			A				
Approach Delay		40.8			16.0			9.3				
Approach LOS		D			B			A				

Intersection Summary

Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 33 (44%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 17.5 Intersection LOS: B
Intersection Capacity Utilization 74.1% ICU Level of Service C
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 16: Genesee Street & Elm Street

ø1	ø2
48 s	27 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰↑↱			↰↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.944			0.914			0.994			0.990	
Flt Protected		0.978			0.996			0.994			0.989	
Satd. Flow (prot)	0	2738	0	0	2878	0	0	3053	0	0	2675	0
Flt Permitted		0.821			0.939			0.907			0.842	
Satd. Flow (perm)	0	2298	0	0	2713	0	0	2786	0	0	2278	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			96			10			16	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	34	14	27	8	45	82	27	220	7	45	159	13
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.71	0.70	0.68	0.67	0.75	0.85	0.75	0.82	0.58	0.80	0.92	0.81
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	0%	15%	13%	2%	2%	33%	1%	14%	58%	8%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	20	40	12	60	96	36	268	12	56	173	16
Lane Group Flow (vph)	0	108	0	0	168	0	0	316	0	0	245	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		27.0	27.0		27.0	27.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Act Effct Green (s)		10.0			10.0			19.5			19.5	
Actuated g/C Ratio		0.27			0.27			0.57			0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.16			0.21			0.20			0.19	
Uniform Delay, d1		6.0			4.1			3.5			3.3	
Delay		4.6			3.4			4.2			4.1	
LOS		A			A			A			A	
Approach Delay		4.6			3.4			4.2			4.1	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 34.3
Natural Cycle: 50
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.21
Intersection Signal Delay: 4.0 Intersection LOS: A
Intersection Capacity Utilization 24.9% ICU Level of Service A

Splits and Phases: 46: Scott Street & Washington Street

ø1 35 s
ø2 25 s

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (veh/h)	1	7	27	179	156	13
Peak Hour Factor	0.25	0.88	0.48	0.55	0.60	0.65
Hourly flow rate (veh/h)	4	8	56	325	260	20

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	7	5	38	344	260	20
Volume Left (vph)	4	0	0	0	260	0
Volume Right (vph)	0	0	0	325	0	20
Hadj (s)	0.1	0.0	0.0	-0.5	0.4	-0.6
Departure Headway (s)	5.8	5.7	5.5	4.9	5.8	4.9
Degree Utilization, x	0.01	0.01	0.06	0.47	0.42	0.03
Capacity (veh/h)	577	592	520	619	612	726
Control Delay (s)	7.7	7.5	7.6	11.1	11.8	6.8
Approach Delay (s)	7.6		10.7		11.4	
Approach LOS	A		B		B	

Intersection Summary			
Delay	10.9		
HCM Level of Service	B		
Intersection Capacity Utilization	36.1%	ICU Level of Service	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.911			0.904			0.960			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	1549	0	1221	1488	0	1624	1464	0	1608	1690	0
Flt Permitted	0.685			0.487			0.264			0.680		
Satd. Flow (perm)	1171	1549	0	626	1488	0	451	1464	0	1151	1690	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		138			72			32			2	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	14	95	119	6	28	62	12	68	22	153	523	4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.85	0.73	0.50	0.70	0.86	0.60	0.77	0.69	0.96	0.84	0.50
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	1%	33%	0%	6%	0%	10%	18%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	20	112	163	12	40	72	20	88	32	159	623	8
Lane Group Flow (vph)	20	275	0	12	112	0	20	120	0	159	631	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	9.0		9.0	9.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)	22.0	22.0		22.0	22.0		32.0	32.0		32.0	32.0	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.53	0.53		0.53	0.53	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.05	0.42		0.05	0.19		0.08	0.15		0.26	0.70	
Uniform Delay, d1	12.2	6.6		12.2	4.4		6.8	5.1		7.6	10.4	
Delay	12.5	7.4		12.7	6.2		7.3	5.6		8.0	11.1	
LOS	B	A		B	A		A	A		A	B	
Approach Delay		7.8			6.9			5.8			10.5	
Approach LOS		A			A			A			B	

Intersection Summary

Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 55
Control Type: Pretimed
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 9.1 Intersection LOS: A
Intersection Capacity Utilization 67.9% ICU Level of Service B

Splits and Phases: 36: South Park Ave & Michigan Ave

ø1	ø2
35 s	25 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.981						0.983				
Flt Protected		0.989									0.995	
Satd. Flow (prot)	0	3105	0	0	0	0	0	1666	0	0	3147	0
Flt Permitted		0.989									0.995	
Satd. Flow (perm)	0	3105	0	0	0	0	0	1666	0	0	3147	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26						19				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	28	144	15	0	0	0	0	152	21	40	521	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.54	0.92	0.50	0.90	0.90	0.90	0.90	0.79	0.75	0.71	0.93	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	1%	0%	0%	0%	0%	0%	1%	0%	20%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	52	157	30	0	0	0	0	192	28	56	560	0
Lane Group Flow (vph)	0	239	0	0	0	0	0	220	0	0	616	0
Turn Type	Perm									Perm		
Protected Phases		2						1			1	
Permitted Phases	2	2								1	1	
Detector Phases	2	2						1		1	1	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0						21.0		21.0	21.0	
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38%	38%	0%	0%	0%	0%	0%	62%	0%	62%	62%	0%
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lead/Lag	Lag	Lag						Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes						Yes		Yes	Yes	
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		22.0						37.0			37.0	
Actuated g/C Ratio		0.34						0.57			0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.22						0.23			0.34	
Uniform Delay, d1		13.6						6.3			7.5	
Delay		13.8						6.5			7.7	
LOS		B						A			A	
Approach Delay		13.8						6.5			7.7	
Approach LOS		B						A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 20 (31%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.34
Intersection Signal Delay: 8.8 Intersection LOS: A
Intersection Capacity Utilization 46.6% ICU Level of Service A

Splits and Phases: 31: W.Huron St. & Elmwood Ave

ø1	ø2
40 s	25 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.954			0.963				
Flt Protected		0.998						0.995				
Satd. Flow (prot)	0	3040	0	0	2996	0	0	3040	0	0	0	0
Flt Permitted		0.926						0.995				
Satd. Flow (perm)	0	2821	0	0	2996	0	0	3040	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					151			75				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	5	133	0	0	382	170	37	238	87	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.50	0.69	0.90	0.90	0.82	0.83	0.71	0.71	0.68	0.50	0.50	0.50
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	7%	0%	0%	5%	0%	5%	1%	5%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	193	0	0	466	205	52	335	128	0	0	0
Lane Group Flow (vph)	0	203	0	0	671	0	0	515	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		2			2			1				
Permitted Phases	2				2		1					
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0
Total Split (%)	57%	57%	0%	0%	57%	0%	43%	43%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		37.0			37.0			27.0				
Actuated g/C Ratio		0.53			0.53			0.39				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.14			0.41			0.42				
Uniform Delay, d1		8.4			7.4			13.2				
Delay		8.5			7.6			13.5				
LOS		A			A			B				
Approach Delay		8.5			7.6			13.5				
Approach LOS		A			A			B				

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.42
Intersection Signal Delay: 9.9 Intersection LOS: A
Intersection Capacity Utilization 44.8% ICU Level of Service A

Splits and Phases: 21: Court Street & Franklin Street

ø1	ø2
30 s	40 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Ped Bike Factor												
Frt		0.972									0.944	
Flt Protected					0.996						0.994	
Satd. Flow (prot)	0	2965	0	0	3121	0	0	0	0	0	4181	0
Flt Permitted					0.915						0.994	
Satd. Flow (perm)	0	2965	0	0	2867	0	0	0	0	0	4181	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		52									238	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	172	52	29	345	0	0	0	0	42	232	119
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.67	0.87	0.73	0.75	0.90	0.90	0.90	0.90	0.55	0.73	0.50
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	5%	13%	0%	4%	0%	0%	0%	0%	0%	8%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	257	60	40	460	0	0	0	0	76	318	238
Lane Group Flow (vph)	0	317	0	0	500	0	0	0	0	0	632	0
Turn Type				D.P+P						Perm		
Protected Phases		3		2	2 3						1	
Permitted Phases				3						1		
Detector Phases		3		2	2 3					1	1	
Minimum Initial (s)		4.0		4.0						4.0	4.0	
Minimum Split (s)		21.0		8.0						9.0	9.0	
Total Split (s)	0.0	34.0	0.0	8.0	42.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0
Total Split (%)	0%	49%	0%	11%	60%	0%	0%	0%	0%	40%	40%	0%
Yellow Time (s)		3.0		2.0						3.0	3.0	
All-Red Time (s)		2.0		1.0						2.0	2.0	
Lead/Lag				Lag						Lead	Lead	
Lead-Lag Optimize?				Yes						Yes	Yes	
Recall Mode		Min		None						Min	Min	
Act Effct Green (s)		12.1			17.2						11.8	
Actuated g/C Ratio		0.32			0.45						0.31	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.33			0.38						0.43	
Uniform Delay, d1		8.1			5.1						6.2	
Delay		8.7			5.8						6.7	
LOS		A			A						A	
Approach Delay		8.7			5.8						6.7	
Approach LOS		A			A						A	

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 38.3
Natural Cycle: 40
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.43
Intersection Signal Delay: 6.8 Intersection LOS: A
Intersection Capacity Utilization 42.3% ICU Level of Service A

Splits and Phases: 26: Court Street & Pearl Street

ø1	ø2	ø3
28 s	8 s	34 s

Section 5-5
ETC / No Build / PM Peak

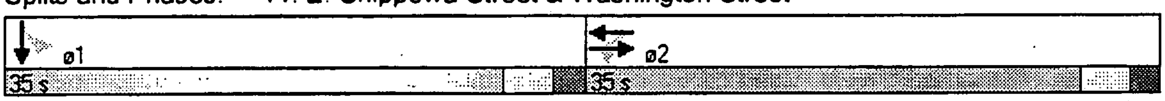
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.927									0.935	
Flt Protected					0.987						0.996	
Satd. Flow (prot)	0	1543	0	0	1671	0	0	0	0	0	3011	0
Flt Permitted					0.774						0.996	
Satd. Flow (perm)	0	1543	0	0	1310	0	0	0	0	0	3011	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		113									273	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	124	127	79	258	0	0	0	0	31	276	143
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.84	0.72	0.76	0.88	0.25	0.25	0.25	0.25	0.60	1.00	0.57
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	6%	0%	1%	1%	0%	0%	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	161	192	113	320	0	0	0	0	56	301	273
Lane Group Flow (vph)	0	353	0	0	433	0	0	0	0	0	630	0
Turn Type				Perm						Perm		
Protected Phases		2			2						1	
Permitted Phases				2						1		
Detector Phases		2		2	2					1	1	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	35.0	35.0	0.0
Total Split (%)	0%	50%	0%	50%	50%	0%	0%	0%	0%	50%	50%	0%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	
Lead/Lag		Lag		Lag	Lag					Lead	Lead	
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0						32.0	
Actuated g/C Ratio		0.46			0.46						0.46	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.46			0.72						0.41	
Uniform Delay, d1		8.4			15.4						6.7	
Delay		8.9			17.8						6.9	
LOS		A			B						A	
Approach Delay		8.9			17.8						6.9	
Approach LOS		A			B						A	

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 10.7 Intersection LOS: B
Intersection Capacity Utilization 78.9% ICU Level of Service C

Splits and Phases: 11: E. Chippewa Street & Washington Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.990			0.937			0.978				
Flt Protected		0.994			0.996			0.997			0.980	
Satd. Flow (prot)	0	1669	0	0	1560	0	0	1574	0	0	1647	0
Flt Permitted		0.967			0.983			0.997			0.778	
Satd. Flow (perm)	0	1624	0	0	1539	0	0	1574	0	0	1307	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			26			21				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	13	151	9	1	19	14	13	294	45	23	38	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.46	0.86	0.56	0.25	0.79	0.58	0.46	0.86	0.63	0.58	0.68	0.25
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	1%	0%	0%	5%	0%	46%	3%	4%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	31	191	18	4	26	26	31	373	78	43	61	0
Lane Group Flow (vph)	0	240	0	0	56	0	0	482	0	0	104	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1	1		1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		21.0	21.0		21.0	21.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	49%	49%	0%	49%	49%	0%	51%	51%	0%	51%	51%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			28.0			28.0	
Actuated g/C Ratio		0.44			0.44			0.46			0.46	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.33			0.08			0.66			0.17	
Uniform Delay, d1		10.6			5.2			12.1			9.7	
Delay		11.1			6.5			12.9			10.1	
LOS		B			A			B			B	
Approach Delay		11.1			6.5			12.9			10.1	
Approach LOS		B			A			B			B	

Intersection Summary
Area Type: CBD
Cycle Length: 61
Actuated Cycle Length: 61
Offset: 35 (57%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 40
Control Type: Pretimed
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 11.7 Intersection LOS: B
Intersection Capacity Utilization 63.2% ICU Level of Service B

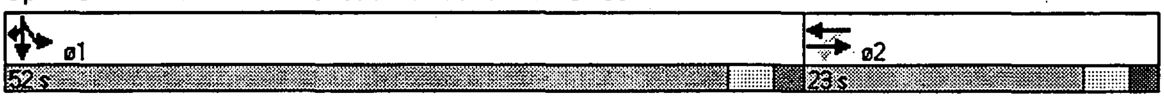
Splits and Phases: 6: E. Huron Street & Ellicott Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	50
Trailing Detector (ft)		0		0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.972										0.850
Flt Protected					0.985						0.999	
Satd. Flow (prot)	0	3058	0	0	3157	0	0	0	0	0	4573	1439
Flt Permitted					0.985						0.999	
Satd. Flow (perm)	0	3058	0	0	3157	0	0	0	0	0	4573	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10										189
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	499	103	46	108	0	0	0	0	22	1754	135
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.83	0.74	0.82	0.87	0.25	0.25	0.25	0.25	0.92	0.86	0.78
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	1%	13%	0%	2%	0%	0%	0%	0%	0%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	655	152	61	135	0	0	0	0	26	2223	189
Lane Group Flow (vph)	0	807	0	0	196	0	0	0	0	0	2249	189
Turn Type				Perm						Split		Prot
Protected Phases		2			2					1	1	1
Permitted Phases				2	2							
Detector Phases		2		2	2					1	1	1
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	21.0
Total Split (s)	0.0	23.0	0.0	23.0	23.0	0.0	0.0	0.0	0.0	52.0	52.0	52.0
Total Split (%)	0%	31%	0%	31%	31%	0%	0%	0%	0%	69%	69%	69%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	2.0
Lead/Lag		Lag		Lag	Lag					Lead	Lead	Lead
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	Yes
Recall Mode		Max		Max	Max					Max	Max	Max
Act Effct Green (s)		20.0			20.0						49.0	49.0
Actuated g/C Ratio		0.27			0.27						0.65	0.65

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.98			0.23						0.75	0.19
Uniform Delay, d1		26.9			21.5						8.9	0.0
Delay		48.8			21.8						9.1	0.9
LOS		D			C						A	A
Approach Delay		48.8			21.8						8.5	
Approach LOS		D			C						A	

Intersection Summary
Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 20 (27%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 18.7 Intersection LOS: B
Intersection Capacity Utilization 89.9% ICU Level of Service D

Splits and Phases: 2: Genesee Street & Oak Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.86	0.86	0.86	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.975			0.996				
Flt Protected		0.968						0.998				
Satd. Flow (prot)	0	3123	0	0	2993	0	0	5695	0	0	0	0
Flt Permitted		0.723						0.998				
Satd. Flow (perm)	0	2333	0	0	2993	0	0	5695	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			11				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	361	179	0	0	74	13	47	1582	32	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.73	0.25	0.25	0.74	0.65	0.78	0.84	0.67	0.25	0.25	0.25
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	2%	0%	0%	7%	0%	21%	2%	6%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	504	267	0	0	109	22	66	2053	52	0	0	0
Lane Group Flow (vph)	0	771	0	0	131	0	0	2171	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		2			2		1	1				
Permitted Phases	2											
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	48.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	36%	36%	0%	0%	36%	0%	64%	64%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			45.0				
Actuated g/C Ratio		0.32			0.32			0.60				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		1.38dl			0.14			0.63				
Uniform Delay, d1		25.5			16.7			9.6				
Delay		61.3			16.9			9.8				
LOS		E			B			A				
Approach Delay		61.3			16.9			9.8				
Approach LOS		E			B			A				

Intersection Summary
Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 33 (44%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 23.0 Intersection LOS: C
Intersection Capacity Utilization 80.3% ICU Level of Service D
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 16: Genesee Street & Elm Street

ø1	ø2
48 s	27 s

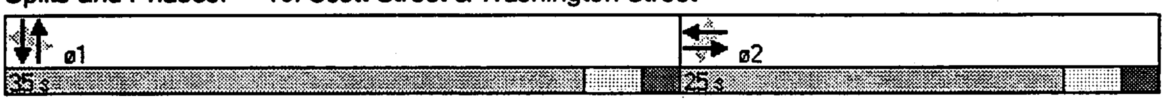
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<↑>			<↑>			<↑>			<↑>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.945			0.914			0.994			0.990	
Flt Protected		0.978			0.996			0.994			0.989	
Satd. Flow (prot)	0	2742	0	0	2878	0	0	3054	0	0	2674	0
Flt Permitted		0.813			0.938			0.903			0.833	
Satd. Flow (perm)	0	2279	0	0	2710	0	0	2774	0	0	2252	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		43			105			10			17	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	34	14	27	8	45	82	27	220	7	45	159	13
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.71	0.70	0.68	0.67	0.75	0.85	0.75	0.82	0.58	0.80	0.92	0.81
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	9%	0%	15%	13%	2%	2%	33%	1%	14%	58%	8%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	52	22	43	13	65	105	39	292	13	61	188	17
Lane Group Flow (vph)	0	117	0	0	183	0	0	344	0	0	266	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		27.0	27.0		27.0	27.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Act Effct Green (s)		10.6			10.6			21.4			21.4	
Actuated g/C Ratio		0.27			0.27			0.57			0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.18			0.23			0.22			0.21	
Uniform Delay, d1		6.5			4.4			3.6			3.4	
Delay		4.8			3.5			4.1			4.1	
LOS		A			A			A			A	
Approach Delay		4.8			3.5			4.1			4.1	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 37.4
Natural Cycle: 50
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.23
Intersection Signal Delay: 4.1 Intersection LOS: A
Intersection Capacity Utilization 35.6% ICU Level of Service A

Splits and Phases: 46: Scott Street & Washington Street



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (veh/h)	1	7	27	179	156	13
Peak Hour Factor	0.25	0.88	0.48	0.55	0.60	0.65
Hourly flow rate (veh/h)	4	9	61	355	283	22

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	7	6	41	375	283	22
Volume Left (vph)	4	0	0	0	283	0
Volume Right (vph)	0	0	0	355	0	22
Hadj (s)	0.1	0.0	0.0	-0.5	0.4	-0.6
Departure Headway (s)	6.0	5.8	5.6	5.0	5.9	5.0
Degree Utilization, x	0.01	0.01	0.06	0.52	0.47	0.03
Capacity (veh/h)	562	576	515	618	601	711
Control Delay (s)	7.8	7.7	7.7	12.3	12.8	6.9
Approach Delay (s)	7.8		11.8		12.4	
Approach LOS	A		B		B	

Intersection Summary			
Delay	12.0		
HCM Level of Service	B		
Intersection Capacity Utilization	38.8%	ICU Level of Service	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.911			0.904			0.960			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	1549	0	1221	1488	0	1624	1464	0	1608	1690	0
Flt Permitted	0.678			0.456			0.223			0.673		
Satd. Flow (perm)	1159	1549	0	586	1488	0	381	1464	0	1139	1690	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		138			79			35			2	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	14	95	119	6	28	62	12	68	22	153	523	4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.85	0.73	0.50	0.70	0.86	0.60	0.77	0.69	0.96	0.84	0.50
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	0%	1%	33%	0%	6%	0%	10%	18%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	22	122	178	13	44	79	22	96	35	174	679	9
Lane Group Flow (vph)	22	300	0	13	123	0	22	131	0	174	688	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	9.0		9.0	9.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)	22.0	22.0		22.0	22.0		32.0	32.0		32.0	32.0	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.53	0.53		0.53	0.53	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.05	0.46		0.06	0.21		0.11	0.16		0.29	0.76	
Uniform Delay, d1	12.3	7.3		12.3	4.4		6.9	5.1		7.7	11.0	
Delay	12.6	8.0		12.8	6.1		7.5	5.6		8.1	13.2	
LOS	B	A		B	A		A	A		A	B	
Approach Delay		8.3			6.8			5.9			12.2	
Approach LOS		A			A			A			B	

Intersection Summary

Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 55
Control Type: Pretimed
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 10.2 Intersection LOS: B
Intersection Capacity Utilization 72.8% ICU Level of Service C

Splits and Phases: 36: South Park Ave & Michigan Ave

ø1	ø2
35 s	25 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱						↑↱			↰↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.981						0.983				
Flt Protected		0.989									0.995	
Satd. Flow (prot)	0	3105	0	0	0	0	0	1666	0	0	3147	0
Flt Permitted		0.989									0.995	
Satd. Flow (perm)	0	3105	0	0	0	0	0	1666	0	0	3147	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27						19				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	28	144	15	0	0	0	0	152	21	40	521	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.54	0.92	0.50	0.90	0.90	0.90	0.90	0.79	0.75	0.71	0.93	0.90
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	4%	1%	0%	0%	0%	0%	0%	1%	0%	20%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	57	171	33	0	0	0	0	210	31	61	611	0
Lane Group Flow (vph)	0	261	0	0	0	0	0	241	0	0	672	0
Turn Type	Perm									Perm		
Protected Phases		2						1			1	
Permitted Phases	2	2								1	1	
Detector Phases	2	2						1		1	1	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0						21.0		21.0	21.0	
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38%	38%	0%	0%	0%	0%	0%	62%	0%	62%	62%	0%
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lead/Lag	Lag	Lag						Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes						Yes		Yes	Yes	
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		22.0						37.0			37.0	
Actuated g/C Ratio		0.34						0.57			0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.24						0.25			0.38	
Uniform Delay, d1		13.8						6.4			7.7	
Delay		14.0						6.7			7.8	
LOS		B						A			A	
Approach Delay		14.0						6.7			7.8	
Approach LOS		B						A			A	

Intersection Summary

Area Type: CBD

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 20 (31%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 45

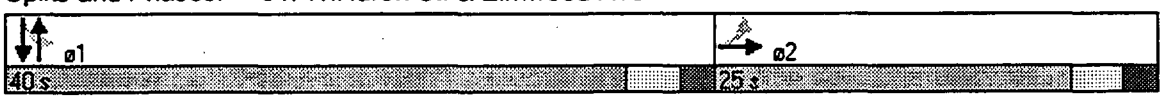
Control Type: Pretimed

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 9.0 Intersection LOS: A

Intersection Capacity Utilization 53.3% ICU Level of Service A

Splits and Phases: 31: W.Huron St. & Elmwood Ave



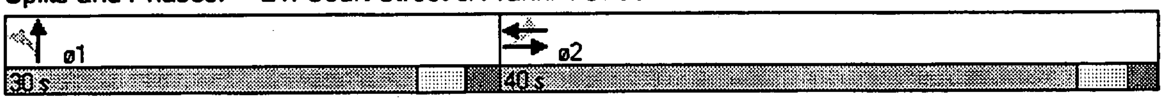
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.954			0.963				
Flt Protected		0.998						0.995				
Satd. Flow (prot)	0	3040	0	0	2995	0	0	3040	0	0	0	0
Flt Permitted		0.922						0.995				
Satd. Flow (perm)	0	2809	0	0	2995	0	0	3040	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					150			75				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	5	133	0	0	382	170	37	238	87	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.50	0.69	0.90	0.90	0.82	0.83	0.71	0.71	0.68	0.50	0.50	0.50
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	7%	0%	0%	5%	0%	5%	1%	5%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	210	0	0	508	223	57	365	139	0	0	0
Lane Group Flow (vph)	0	221	0	0	731	0	0	561	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		2			2			1				
Permitted Phases	2				2		1					
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0
Total Split (%)	57%	57%	0%	0%	57%	0%	43%	43%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		37.0			37.0			27.0				
Actuated g/C Ratio		0.53			0.53			0.39				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.15			0.44			0.46				
Uniform Delay, d1		8.4			7.8			13.7				
Delay		8.6			8.0			14.0				
LOS		A			A			B				
Approach Delay		8.6			8.0			14.0				
Approach LOS		A			A			B				

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 10.3 Intersection LOS: B
Intersection Capacity Utilization 48.2% ICU Level of Service A

Splits and Phases: 21: Court Street & Franklin Street

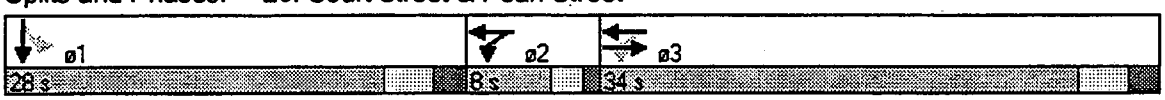


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Ped Bike Factor												
Frt		0.972									0.944	
Flt Protected					0.996						0.994	
Satd. Flow (prot)	0	2965	0	0	3121	0	0	0	0	0	4181	0
Flt Permitted					0.911						0.994	
Satd. Flow (perm)	0	2965	0	0	2855	0	0	0	0	0	4181	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51									244	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	172	52	29	345	0	0	0	0	42	232	119
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.67	0.87	0.73	0.75	0.90	0.90	0.90	0.90	0.55	0.73	0.50
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	5%	13%	0%	4%	0%	0%	0%	0%	0%	8%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	280	65	43	501	0	0	0	0	83	346	259
Lane Group Flow (vph)	0	345	0	0	544	0	0	0	0	0	688	0
Turn Type				D.P+P						Perm		
Protected Phases		3		2	2 3						1	
Permitted Phases				3						1		
Detector Phases		3		2	2 3					1	1	
Minimum Initial (s)		4.0		4.0						4.0	4.0	
Minimum Split (s)		21.0		8.0						9.0	9.0	
Total Split (s)	0.0	34.0	0.0	8.0	42.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0
Total Split (%)	0%	49%	0%	11%	60%	0%	0%	0%	0%	40%	40%	0%
Yellow Time (s)		3.0		2.0						3.0	3.0	
All-Red Time (s)		2.0		1.0						2.0	2.0	
Lead/Lag				Lag						Lead	Lead	
Lead-Lag Optimize?				Yes						Yes	Yes	
Recall Mode		Min		None						Min	Min	
Act Effct Green (s)		13.1			18.3						12.4	
Actuated g/C Ratio		0.33			0.46						0.31	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.34			0.41						0.47	
Uniform Delay, d1		8.4			5.3						6.8	
Delay		9.0			6.2						7.4	
LOS		A			A						A	
Approach Delay		9.0			6.2						7.4	
Approach LOS		A			A						A	

Intersection Summary
Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 40
Natural Cycle: 40
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 7.3 Intersection LOS: A
Intersection Capacity Utilization 46.5% ICU Level of Service A

Splits and Phases: 26: Court Street & Pearl Street



Section 5-6
ETC + 5 / No Build / PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.926									0.935	
Flt Protected					0.987						0.996	
Satd. Flow (prot)	0	1541	0	0	1671	0	0	0	0	0	3011	0
Flt Permitted					0.725						0.996	
Satd. Flow (perm)	0	1541	0	0	1227	0	0	0	0	0	3011	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		113									296	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	124	127	79	258	0	0	0	0	31	276	143
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.84	0.72	0.76	0.88	0.25	0.25	0.25	0.25	0.60	1.00	0.57
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	6%	0%	1%	1%	0%	0%	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	174	208	123	346	0	0	0	0	61	326	296
Lane Group Flow (vph)	0	382	0	0	469	0	0	0	0	0	683	0
Turn Type				Perm						Perm		
Protected Phases		2			2						1	
Permitted Phases				2						1		
Detector Phases		2		2	2					1	1	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	35.0	35.0	0.0
Total Split (%)	0%	50%	0%	50%	50%	0%	0%	0%	0%	50%	50%	0%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	
Lead/Lag		Lag		Lag	Lag					Lead	Lead	
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0						32.0	
Actuated g/C Ratio		0.46			0.46						0.46	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.50			0.84						0.44	
Uniform Delay, d1		8.9			16.7						6.8	
Delay		9.5			24.1						7.1	
LOS		A			C						A	
Approach Delay		9.5			24.1						7.1	
Approach LOS		A			C						A	

Intersection Summary

Area Type: CBD

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green

Natural Cycle: 50

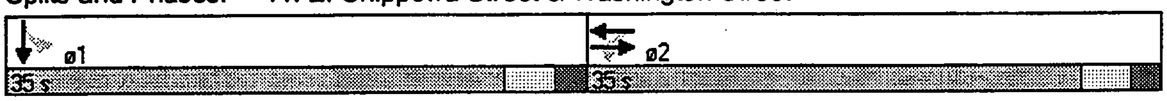
Control Type: Pretimed

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 12.9 Intersection LOS: B

Intersection Capacity Utilization 84.6% ICU Level of Service D

Splits and Phases: 11: E. Chippewa Street & Washington Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.990			0.938			0.978				
Flt Protected		0.994			0.996			0.997			0.980	
Satd. Flow (prot)	0	1669	0	0	1562	0	0	1575	0	0	1647	0
Flt Permitted		0.966			0.979			0.997			0.784	
Satd. Flow (perm)	0	1622	0	0	1535	0	0	1575	0	0	1318	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			28			21				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	13	151	9	1	19	14	13	294	45	23	38	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.46	0.86	0.56	0.25	0.79	0.58	0.46	0.86	0.63	0.58	0.68	0.25
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	1%	0%	0%	5%	0%	46%	3%	4%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	33	207	19	5	28	28	33	403	84	47	66	0
Lane Group Flow (vph)	0	259	0	0	61	0	0	520	0	0	113	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1	1		1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		21.0	21.0		21.0	21.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	49%	49%	0%	49%	49%	0%	51%	51%	0%	51%	51%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			28.0			28.0	
Actuated g/C Ratio		0.44			0.44			0.46			0.46	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.36			0.09			0.71			0.19	
Uniform Delay, d1		10.9			5.2			12.6			9.7	
Delay		11.3			6.5			13.9			10.2	
LOS		B			A			B			B	
Approach Delay		11.3			6.5			13.9			10.2	
Approach LOS		B			A			B			B	

Intersection Summary
Area Type: CBD
Cycle Length: 61
Actuated Cycle Length: 61
Offset: 35 (57%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 40
Control Type: Pretimed
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 12.3 Intersection LOS: B
Intersection Capacity Utilization 66.8% ICU Level of Service B

Splits and Phases: 6: E. Huron Street & Ellicott Street

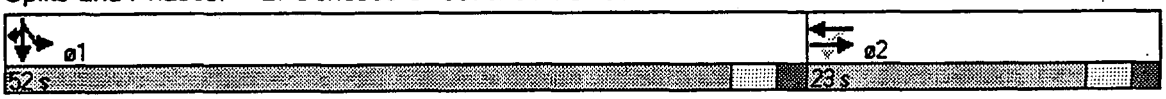
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↰↑						↰↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	50
Trailing Detector (ft)		0		0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.972										0.850
Flt Protected					0.985						0.999	
Satd. Flow (prot)	0	3058	0	0	3157	0	0	0	0	0	4573	1439
Flt Permitted					0.985						0.999	
Satd. Flow (perm)	0	3058	0	0	3157	0	0	0	0	0	4573	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7										204
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	499	103	46	108	0	0	0	0	22	1754	135
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.83	0.74	0.82	0.87	0.25	0.25	0.25	0.25	0.92	0.86	0.78
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	1%	13%	0%	2%	0%	0%	0%	0%	0%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	709	164	66	146	0	0	0	0	28	2407	204
Lane Group Flow (vph)	0	873	0	0	212	0	0	0	0	0	2435	204
Turn Type				Perm						Split		Prot
Protected Phases		2			2					1	1	1
Permitted Phases				2	2							
Detector Phases		2		2	2					1	1	1
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	21.0
Total Split (s)	0.0	23.0	0.0	23.0	23.0	0.0	0.0	0.0	0.0	52.0	52.0	52.0
Total Split (%)	0%	31%	0%	31%	31%	0%	0%	0%	0%	69%	69%	69%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	2.0
Lead/Lag		Lag		Lag	Lag					Lead	Lead	Lead
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	Yes
Recall Mode		Max		Max	Max					Max	Max	Max
Act Effct Green (s)		20.0			20.0						49.0	49.0
Actuated g/C Ratio		0.27			0.27						0.65	0.65

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		1.06			0.25						0.81	0.20
Uniform Delay, d1		27.3			21.6						9.6	0.0
Delay		69.6			21.9						10.0	0.9
LOS		E			C						B	A
Approach Delay		69.6			21.9						9.3	
Approach LOS		E			C						A	

Intersection Summary

Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 20 (27%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 24.2 Intersection LOS: C
Intersection Capacity Utilization 96.6% ICU Level of Service E

Splits and Phases: 2: Genesee Street & Oak Street



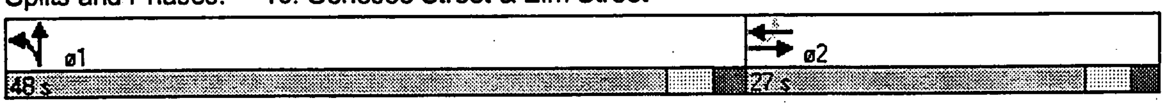
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.86	0.86	0.86	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.975			0.996				
Flt Protected		0.968						0.998				
Satd. Flow (prot)	0	3123	0	0	2994	0	0	5695	0	0	0	0
Flt Permitted		0.718						0.998				
Satd. Flow (perm)	0	2317	0	0	2994	0	0	5695	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			11				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	361	179	0	0	74	13	47	1582	32	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.73	0.25	0.25	0.74	0.65	0.78	0.84	0.67	0.25	0.25	0.25
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	2%	0%	0%	7%	0%	21%	2%	6%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	546	289	0	0	118	24	71	2222	56	0	0	0
Lane Group Flow (vph)	0	835	0	0	142	0	0	2349	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		2			2		1	1				
Permitted Phases	2											
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	48.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	36%	36%	0%	0%	36%	0%	64%	64%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			45.0				
Actuated g/C Ratio		0.32			0.32			0.60				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		1.51dl			0.15			0.69				
Uniform Delay, d1		25.5			17.3			10.1				
Delay		87.6			17.5			10.3				
LOS		F			B			B				
Approach Delay		87.6			17.5			10.3				
Approach LOS		F			B			B				

Intersection Summary

Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 33 (44%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 55
Control Type: Pretimed
Maximum v/c Ratio: 1.13
Intersection Signal Delay: 30.0 Intersection LOS: C
Intersection Capacity Utilization 86.1% ICU Level of Service D
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 16: Genesee Street & Elm Street



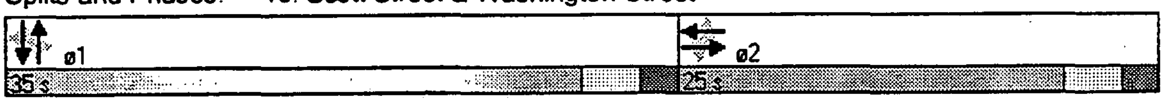
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↑↱			↰↑↑↱			↰↑↑↱			↰↑↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.945			0.914			0.994			0.990	
Flt Protected		0.978			0.996			0.994			0.989	
Satd. Flow (prot)	0	2742	0	0	2878	0	0	3055	0	0	2676	0
Flt Permitted		0.804			0.937			0.899			0.823	
Satd. Flow (perm)	0	2254	0	0	2707	0	0	2763	0	0	2227	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		47			114			10			18	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	34	14	27	8	45	82	27	220	7	45	159	13
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.71	0.70	0.68	0.67	0.75	0.85	0.75	0.82	0.58	0.80	0.92	0.81
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	9%	0%	15%	13%	2%	2%	33%	1%	14%	58%	8%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	57	24	47	14	71	114	42	317	14	66	204	19
Lane Group Flow (vph)	0	128	0	0	199	0	0	373	0	0	289	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		27.0	27.0		27.0	27.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Act Effct Green (s)		10.6			10.6			20.9			20.9	
Actuated g/C Ratio		0.27			0.27			0.57			0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.20			0.24			0.24			0.23	
Uniform Delay, d1		6.4			4.3			3.7			3.5	
Delay		5.0			3.6			4.3			4.3	
LOS		A			A			A			A	
Approach Delay		5.0			3.6			4.3			4.3	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 36.6
Natural Cycle: 50
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.24
Intersection Signal Delay: 4.3 Intersection LOS: A
Intersection Capacity Utilization 37.8% ICU Level of Service A

Splits and Phases: 46: Scott Street & Washington Street



HCM Unsignalized Intersection Capacity Analysis
43: Perry Street & Washington Street

10/18/2001

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (veh/h)	1	7	27	179	156	13
Peak Hour Factor	0.25	0.88	0.48	0.55	0.60	0.65
Hourly flow rate (veh/h)	5	9	66	384	307	24

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	8	6	44	406	307	24
Volume Left (vph)	5	0	0	0	307	0
Volume Right (vph)	0	0	0	384	0	24
Hadj (s)	0.1	0.0	0.0	-0.5	0.4	-0.6
Departure Headway (s)	6.1	6.0	5.7	5.1	6.0	5.1
Degree Utilization, x	0.01	0.01	0.07	0.58	0.51	0.03
Capacity (veh/h)	546	558	510	616	591	696
Control Delay (s)	8.0	7.8	7.9	13.8	14.0	7.0
Approach Delay (s)	7.9		13.2		13.5	
Approach LOS	A		B		B	

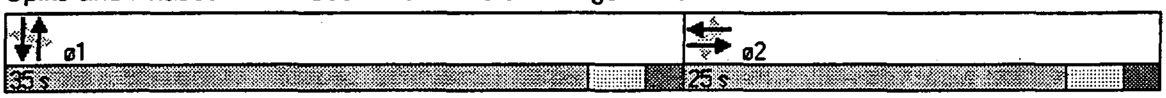
Intersection Summary			
Delay	13.2		
HCM Level of Service	B		
Intersection Capacity Utilization	41.4%	ICU Level of Service	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.911			0.903			0.960			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	1549	0	1221	1487	0	1624	1464	0	1608	1690	0
Flt Permitted	0.672			0.427			0.183			0.666		
Satd. Flow (perm)	1149	1549	0	549	1487	0	313	1464	0	1128	1690	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		138			85			38			2	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	14	95	119	6	28	62	12	68	22	153	523	4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.85	0.73	0.50	0.70	0.86	0.60	0.77	0.69	0.96	0.84	0.50
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	0%	1%	33%	0%	6%	0%	10%	18%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	24	132	192	14	47	85	24	104	38	188	735	9
Lane Group Flow (vph)	24	324	0	14	132	0	24	142	0	188	744	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	9.0		9.0	9.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)	22.0	22.0		22.0	22.0		32.0	32.0		32.0	32.0	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.53	0.53		0.53	0.53	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.06	0.49		0.07	0.22		0.14	0.18		0.31	0.82	
Uniform Delay, d1	12.3	7.9		12.3	4.4		7.1	5.2		7.8	11.6	
Delay	12.6	8.6		12.9	6.0		7.9	5.5		8.3	16.3	
LOS	B	A		B	A		A	A		A	B	
Approach Delay		8.8			6.7			5.9			14.7	
Approach LOS		A			A			A			B	

Intersection Summary
Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 11.7 Intersection LOS: B
Intersection Capacity Utilization 77.7% ICU Level of Service C

Splits and Phases: 36: South Park Ave & Michigan Ave



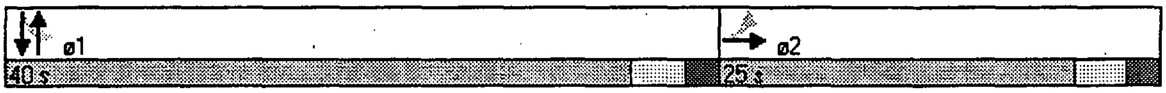
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱						↑↱			↰↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.981						0.983				
Flt Protected		0.989									0.995	
Satd. Flow (prot)	0	3105	0	0	0	0	0	1666	0	0	3147	0
Flt Permitted		0.989									0.995	
Satd. Flow (perm)	0	3105	0	0	0	0	0	1666	0	0	3147	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26						19				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	28	144	15	0	0	0	0	152	21	40	521	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.54	0.92	0.50	0.90	0.90	0.90	0.90	0.79	0.75	0.71	0.93	0.90
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	4%	1%	0%	0%	0%	0%	0%	1%	0%	20%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	61	185	35	0	0	0	0	227	33	66	661	0
Lane Group Flow (vph)	0	281	0	0	0	0	0	260	0	0	727	0
Turn Type	Perm									Perm		
Protected Phases		2						1			1	
Permitted Phases	2	2								1	1	
Detector Phases	2	2						1		1	1	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0						21.0		21.0	21.0	
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38%	38%	0%	0%	0%	0%	0%	62%	0%	62%	62%	0%
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lead/Lag	Lag	Lag						Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes						Yes		Yes	Yes	
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		22.0						37.0			37.0	
Actuated g/C Ratio		0.34						0.57			0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.26						0.27			0.41	
Uniform Delay, d1		14.0						6.5			7.8	
Delay		14.3						6.8			8.0	
LOS		B						A			A	
Approach Delay		14.3						6.8			8.0	
Approach LOS		B						A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 20 (31%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 9.2 Intersection LOS: A
Intersection Capacity Utilization 56.9% ICU Level of Service A

Splits and Phases: 31: W.Huron St. & Elmwood Ave



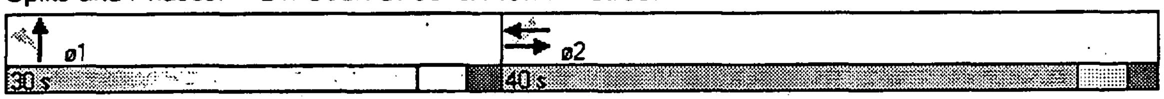
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.954			0.963				
Flt Protected		0.997						0.995				
Satd. Flow (prot)	0	3037	0	0	2996	0	0	3040	0	0	0	0
Flt Permitted		0.918						0.995				
Satd. Flow (perm)	0	2797	0	0	2996	0	0	3040	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					151			75				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	5	133	0	0	382	170	37	238	87	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.50	0.69	0.90	0.90	0.82	0.83	0.71	0.71	0.68	0.50	0.50	0.50
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	7%	0%	0%	5%	0%	5%	1%	5%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	12	227	0	0	550	242	61	396	151	0	0	0
Lane Group Flow (vph)	0	239	0	0	792	0	0	608	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		2			2			1				
Permitted Phases	2				2		1					
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0
Total Split (%)	57%	57%	0%	0%	57%	0%	43%	43%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		37.0			37.0			27.0				
Actuated g/C Ratio		0.53			0.53			0.39				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.16			0.48			0.50				
Uniform Delay, d1		8.5			8.1			14.1				
Delay		8.6			8.4			14.4				
LOS		A			A			B				
Approach Delay		8.6			8.4			14.4				
Approach LOS		A			A			B				

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 10.6 Intersection LOS: B
Intersection Capacity Utilization 51.6% ICU Level of Service A

Splits and Phases: 21: Court Street & Franklin Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Ped Bike Factor												
Frt		0.972									0.943	
Flt Protected					0.996						0.994	
Satd. Flow (prot)	0	2965	0	0	3121	0	0	0	0	0	4176	0
Flt Permitted					0.906						0.994	
Satd. Flow (perm)	0	2965	0	0	2839	0	0	0	0	0	4176	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		52									242	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	172	52	29	345	0	0	0	0	42	232	119
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.67	0.87	0.73	0.75	0.90	0.90	0.90	0.90	0.55	0.73	0.50
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	5%	13%	0%	4%	0%	0%	0%	0%	0%	8%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	303	71	47	543	0	0	0	0	90	375	281
Lane Group Flow (vph)	0	374	0	0	590	0	0	0	0	0	746	0
Turn Type				D.P+P						Perm		
Protected Phases		3		2	2 3						1	
Permitted Phases				3						1		
Detector Phases		3		2	2 3					1	1	
Minimum Initial (s)		4.0		4.0						4.0	4.0	
Minimum Split (s)		21.0		8.0						9.0	9.0	
Total Split (s)	0.0	34.0	0.0	8.0	42.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0
Total Split (%)	0%	49%	0%	11%	60%	0%	0%	0%	0%	40%	40%	0%
Yellow Time (s)		3.0		2.0						3.0	3.0	
All-Red Time (s)		2.0		1.0						2.0	2.0	
Lead/Lag				Lag						Lead	Lead	
Lead-Lag Optimize?				Yes						Yes	Yes	
Recall Mode		Min		None						Min	Min	
Act Effct Green (s)		13.7			18.9						13.8	
Actuated g/C Ratio		0.33			0.45						0.33	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.37			0.45						0.49	
Uniform Delay, d1		9.1			5.9						7.2	
Delay		9.7			7.0						7.8	
LOS		A			A						A	
Approach Delay		9.7			7.0						7.8	
Approach LOS		A			A						A	

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 42
Natural Cycle: 40
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 7.9 Intersection LOS: A
Intersection Capacity Utilization 51.1% ICU Level of Service A

Splits and Phases: 26: Court Street & Pearl Street

ø1	ø2	ø3
28 s	8 s	34 s

Section 5-7
ETC / Build / AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1517	0	0	1671	0	0	0	0	0	3077	0
Flt Permitted					0.718						0.996	
Satd. Flow (perm)	0	1517	0	0	1213	0	0	0	0	0	3077	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		181									116	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	92	221	114	484	0	0	0	0	37	427	166
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.75	0.94	0.67	0.88	0.25	0.25	0.25	0.25	0.67	0.89	0.83
Growth Factor	109%	100%	100%	100%	109%	109%	109%	109%	109%	100%	100%	109%
Heavy Vehicles (%)	0%	6%	1%	2%	1%	0%	0%	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	358	0	0	770	0	0	0	0	0	753	0
Turn Type				Perm						Perm		
Protected Phases		2			2						1	
Permitted Phases				2						1		
Detector Phases		2		2	2					1	1	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					8.0	8.0	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	35.0	35.0	0.0
Total Split (%)	0%	50%	0%	50%	50%	0%	0%	0%	0%	50%	50%	0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lead/Lag		Lag		Lag	Lag					Lead	Lead	
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0						32.0	
Actuated g/C Ratio		0.46			0.46						0.46	
v/c Ratio		0.45			1.39						0.51	
Uniform Delay, d1		5.9			19.0						11.1	
Delay		6.3			159.4						11.4	
LOS		A			F						B	
Approach Delay		6.3			159.4						11.4	
Approach LOS		A			F						B	

Intersection Summary
Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 8 (11%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 55
Control Type: Pretimed
Maximum v/c Ratio: 1.39
Intersection Signal Delay: 71.0 Intersection LOS: E
Intersection Capacity Utilization 103.0% ICU Level of Service F

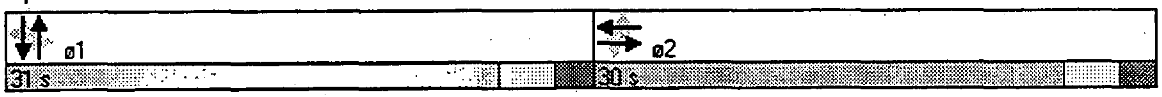
Splits and Phases: 11: E. Chippewa Street & Washington Street

ø1	ø2
35 s	35 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1581	0	0	1565	0	0	1461	0	0	1555	0
Flt Permitted		0.918			0.889			0.997			0.981	
Satd. Flow (perm)	0	1461	0	0	1405	0	0	1461	0	0	1530	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			55			8			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	18	132	25	56	120	71	16	289	15	1	43	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.45	0.78	0.31	0.83	0.79	0.68	0.80	0.88	0.63	0.25	0.75	0.25
Growth Factor	109%	100%	100%	100%	100%	109%	109%	100%	109%	109%	100%	109%
Heavy Vehicles (%)	0%	6%	0%	0%	4%	4%	50%	13%	20%	0%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	294	0	0	333	0	0	376	0	0	65	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1	1		1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	49%	49%	0%	49%	49%	0%	51%	51%	0%	51%	51%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			28.0			28.0	
Actuated g/C Ratio		0.44			0.44			0.46			0.46	
v/c Ratio		0.44			0.51			0.56			0.09	
Uniform Delay, d1		10.0			10.0			11.7			8.7	
Delay		10.5			10.6			12.4			9.1	
LOS		B			B			B			A	
Approach Delay		10.5			10.6			12.4			9.1	
Approach LOS		B			B			B			A	

Intersection Summary	
Area Type: CBD	
Cycle Length: 61	
Actuated Cycle Length: 61	
Offset: 20 (33%), Referenced to phase 2:EBWB, Start of Green	
Natural Cycle: 45	
Control Type: Pretimed	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 77.7%	ICU Level of Service C

Splits and Phases: 6: E. Huron Street & Ellicott Street



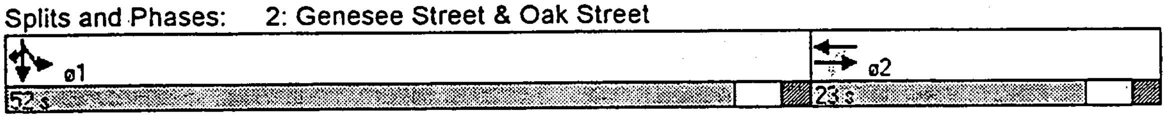
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	50
Trailing Detector (ft)		0		0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.953										0.850
Flt Protected					0.990						0.999	
Satd. Flow (prot)	0	2740	0	0	3191	0	0	0	0	0	4617	1439
Flt Permitted					0.990						0.999	
Satd. Flow (perm)	0	2740	0	0	3191	0	0	0	0	0	4617	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												113
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	126	35	75	357	0	0	0	0	50	3200	609
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.81	0.49	0.72	0.85	0.25	0.25	0.25	0.25	0.75	0.88	0.88
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	37%	0%	1%	0%	0%	0%	0%	2%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	170	78	114	458	0	0	0	0	67	3636	692
Lane Group Flow (vph)	0	248	0	0	572	0	0	0	0	0	3703	692
Turn Type				Perm						Split		Prot
Protected Phases		2			2					1	1	1
Permitted Phases				2	2							
Detector Phases		2		2	2					1	1	1
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	21.0
Total Split (s)	0.0	23.0	0.0	23.0	23.0	0.0	0.0	0.0	0.0	52.0	52.0	52.0
Total Split (%)	0%	31%	0%	31%	31%	0%	0%	0%	0%	69%	69%	69%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	2.0
Lead/Lag		Lag		Lag	Lag					Lead	Lead	Lead
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	Yes
Recall Mode		Max		Max	Max					Max	Max	Max
Act Effct Green (s)		20.0			20.0						49.0	49.0
Actuated g/C Ratio		0.27			0.27						0.65	0.65

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.34			0.67						1.23	0.71
Uniform Delay, d1		22.1			24.6						13.0	6.7
Delay		22.5			25.0						107.6	7.5
LOS		C			C						F	A
Approach Delay		22.5			25.0						91.8	
Approach LOS		C			C						F	

Intersection Summary

Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 20 (27%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 150
Control Type: Pretimed
Maximum v/c Ratio: 1.23
Intersection Signal Delay: 81.2 Intersection LOS: F
Intersection Capacity Utilization 115.3% ICU Level of Service G

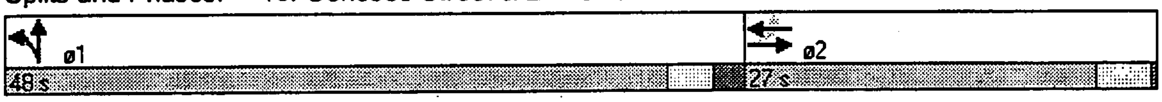
Splits and Phases: 2: Genesee Street & Oak Street



	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↑↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	2979	0	0	3057	0	0	5537	0	0	0	0
Flt Permitted		0.687						0.991				
Satd. Flow (perm)	0	2099	0	0	3057	0	0	5537	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			49				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	73	80	0	0	291	5	270	1398	128	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.91	0.74	0.25	0.82	0.63	0.75	0.91	0.74	0.25	0.25	0.25
Growth Factor	109%	109%	109%	109%	100%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	13%	0%	0%	6%	0%	3%	4%	5%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	197	0	0	364	0	0	2256	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		2			2		1	1				
Permitted Phases	2											
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.0	20.0			20.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	48.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	36%	36%	0%	0%	36%	0%	64%	64%	0%	0%	0%	0%
Yellow Time (s)	3.5	3.5			3.5		3.0	3.0				
All-Red Time (s)	0.5	0.5			0.5		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			45.0				
Actuated g/C Ratio		0.32			0.32			0.60				
v/c Ratio		0.29			0.37			0.68				
Uniform Delay, d1		19.1			19.5			9.8				
Delay		19.5			19.8			10.0				
LOS		B			B			A				
Approach Delay		19.5			19.8			10.0				
Approach LOS		B			B			A				

Intersection Summary	
Area Type: CBD	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 48 (64%), Referenced to phase 2:EBWB, Start of Green	
Natural Cycle: 45	
Control Type: Pretimed	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 11.9	Intersection LOS: B
Intersection Capacity Utilization 64.5%	ICU Level of Service B

Splits and Phases: 16: Genesee Street & Elm Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰↑↱			↰↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	2818	0	0	2619	0	0	2644	0	0	3010	0
Flt Permitted		0.847			0.898			0.898			0.892	
Satd. Flow (perm)	0	2433	0	0	2378	0	0	2391	0	0	2707	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			80			13			21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	36	15	17	20	21	49	13	86	8	49	285	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.63	0.53	0.71	0.66	0.61	0.81	0.95	0.67	0.77	0.89	0.96
Growth Factor	100%	109%	109%	109%	109%	100%	109%	100%	109%	109%	100%	109%
Heavy Vehicles (%)	0%	27%	0%	5%	14%	15%	38%	16%	25%	8%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	99	0	0	146	0	0	121	0	0	420	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		27.0	27.0		27.0	27.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Act Effct Green (s)		11.7			11.7			26.1			26.1	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
v/c Ratio		0.15			0.22			0.09			0.26	
Uniform Delay, d1		7.8			5.5			2.9			3.5	
Delay		5.0			3.8			3.6			4.0	
LOS		A			A			A			A	
Approach Delay		5.0			3.8			3.6			4.0	
Approach LOS		A			A			A			A	

Intersection Summary	
Area Type: CBD	
Cycle Length: 60	
Actuated Cycle Length: 44	
Natural Cycle: 50	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.26	
Intersection Signal Delay: 4.0	Intersection LOS: A
Intersection Capacity Utilization 28.4%	ICU Level of Service A

Splits and Phases: 46: Scott Street & Washington Street

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (veh/h)	39	6	5	215	241	8
Peak Hour Factor	0.61	0.75	0.25	0.88	0.85	1.00
Hourly flow rate (veh/h)	64	9	22	244	284	9

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	67	6	15	252	284	9
Volume Left (vph)	64	0	0	0	284	0
Volume Right (vph)	0	0	0	244	0	9
Hadj (s)	0.3	0.0	0.7	-0.2	0.5	-0.4
Departure Headway (s)	5.9	5.6	6.0	5.1	5.8	5.0
Degree Utilization, x	0.11	0.01	0.02	0.36	0.46	0.01
Capacity (veh/h)	570	599	475	576	607	703
Control Delay (s)	8.5	7.5	7.9	9.7	12.5	6.9
Approach Delay (s)	8.4		9.6		12.4	
Approach LOS	A		A		B	

Intersection Summary			
Delay	10.7		
HCM Level of Service	B		
Intersection Capacity Utilization	40.9%	ICU Level of Service	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	2803	0	0	2955	0	0	2739	0	0	0	0
Flt Permitted		0.866						0.987				
Satd. Flow (perm)	0	2440	0	0	2955	0	0	2739	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					148			29				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	18	245	0	0	365	169	97	364	69	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.50	0.81	0.90	0.90	0.86	0.84	0.50	0.82	0.75	0.90	0.90	0.90
Growth Factor	100%	109%	109%	109%	109%	100%	100%	100%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	17%	0%	0%	5%	5%	44%	3%	10%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	366	0	0	664	0	0	738	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		2			2			1				
Permitted Phases	2				2		1					
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0
Total Split (%)	57%	57%	0%	0%	57%	0%	43%	43%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		37.0			37.0			27.0				
Actuated g/C Ratio		0.53			0.53			0.39				
v/c Ratio		0.28			0.41			0.69				
Uniform Delay, d1		9.1			7.4			17.2				
Delay		9.4			7.6			17.7				
LOS		A			A			B				
Approach Delay		9.4			7.6			17.7				
Approach LOS		A			A			B				

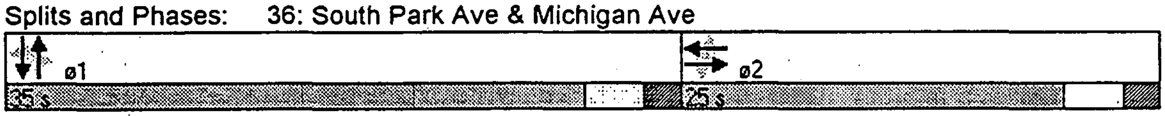
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.906			0.909			0.993			0.983	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1710	1361	0	1221	1472	0	1593	1641	0	1464	1544	0
Flt Permitted				0.734			0.631			0.342		
Satd. Flow (perm)	1710	1361	0	944	1472	0	1058	1641	0	527	1544	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			145			7			17	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	8	9	16	109	217	90	373	15	47	129	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.67	0.45	0.75	0.67	0.87	0.87	0.81	0.63	0.78	0.83	0.50
Growth Factor	109%	109%	109%	100%	100%	100%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	0%	22%	33%	2%	8%	2%	3%	13%	11%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	13	22	21	163	249	113	502	26	66	169	22
Lane Group Flow (vph)	0	35	0	21	412	0	113	528	0	66	191	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	9.0		9.0	9.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		22.0		22.0	22.0		32.0	32.0		32.0	32.0	
Actuated g/C Ratio		0.37		0.37	0.37		0.53	0.53		0.53	0.53	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.07		0.06	0.65		0.20	0.60		0.23	0.23	
Uniform Delay, d1		4.5		12.3	9.7		7.3	9.5		7.5	6.7	
Delay		7.7		12.7	10.6		7.7	10.1		8.3	7.0	
LOS		A		B	B		A	B		A	A	
Approach Delay		7.7			10.7			9.6			7.3	
Approach LOS		A			B			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 50
Control Type: Pretimed
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 9.5 Intersection LOS: A
Intersection Capacity Utilization 71.6% ICU Level of Service C

Splits and Phases: 36: South Park Ave & Michigan Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱						↑↱			↰↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.982						0.994				
Flt Protected		0.992									0.993	
Satd. Flow (prot)	0	3142	0	0	0	0	0	1637	0	0	3115	0
Flt Permitted		0.992									0.993	
Satd. Flow (perm)	0	3142	0	0	0	0	0	1637	0	0	3115	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24						6				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	70	364	42	0	0	0	0	134	4	99	592	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.87	0.62	0.90	0.90	0.90	0.90	0.70	0.50	0.95	0.96	0.90
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	4%	0%	13%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	95	456	74	0	0	0	0	209	9	104	617	0
Lane Group Flow (vph)	0	625	0	0	0	0	0	218	0	0	721	0
Turn Type	Perm									Perm		
Protected Phases		2						1			1	
Permitted Phases	2	2								1	1	
Detector Phases	2	2						1		1	1	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0						21.0		21.0	21.0	
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38%	38%	0%	0%	0%	0%	0%	62%	0%	62%	62%	0%
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lead/Lag	Lag	Lag						Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes						Yes		Yes	Yes	
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		22.0						37.0			37.0	
Actuated g/C Ratio		0.34						0.57			0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.58						0.23			0.41	
Uniform Delay, d1		16.9						6.7			7.8	
Delay		17.3						7.0			8.0	
LOS		B						A			A	
Approach Delay		17.3						7.0			8.0	
Approach LOS		B						A			A	

Intersection Summary

Area Type: CBD

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 45

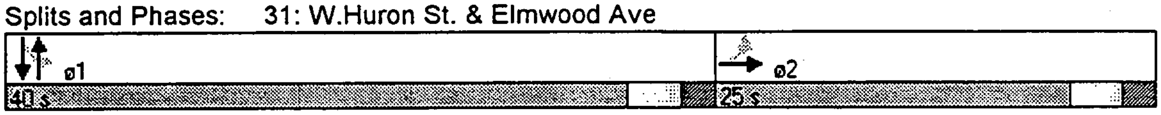
Control Type: Pretimed

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 11.6 Intersection LOS: B

Intersection Capacity Utilization 64.8% ICU Level of Service B

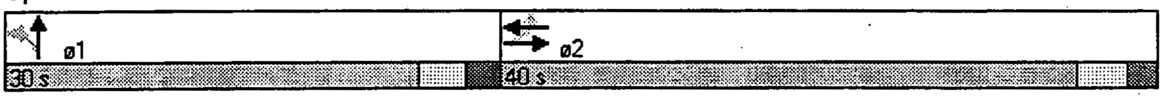
Splits and Phases: 31: W.Huron St. & Elmwood Ave



Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 12.2 Intersection LOS: B
Intersection Capacity Utilization 51.5% ICU Level of Service A

Splits and Phases: 21: Court Street & Franklin Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	2709	0	0	3077	0	0	0	0	0	4127	0
Flt Permitted					0.662						0.992	
Satd. Flow (perm)	0	2709	0	0	2066	0	0	0	0	0	4127	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		228									138	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	215	203	231	509	0	0	0	0	46	271	73
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.83	0.89	0.92	0.84	0.90	0.90	0.90	0.90	0.50	0.82	0.55
Growth Factor	109%	100%	100%	100%	100%	109%	109%	109%	109%	100%	100%	109%
Heavy Vehicles (%)	0%	12%	11%	2%	5%	0%	0%	0%	0%	8%	11%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	487	0	0	857	0	0	0	0	0	567	0
Turn Type				D.P+P						Perm		
Protected Phases		3		2	2 3						1	
Permitted Phases				3						1		
Detector Phases		3		2	2 3					1	1	
Minimum Initial (s)		4.0		4.0						4.0	4.0	
Minimum Split (s)		21.0		8.0						9.0	9.0	
Total Split (s)	0.0	34.0	0.0	8.0	42.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0
Total Split (%)	0%	49%	0%	11%	60%	0%	0%	0%	0%	40%	40%	0%
Yellow Time (s)		3.0		2.0						3.0	3.0	
All-Red Time (s)		2.0		1.0						2.0	2.0	
Lead/Lag				Lag						Lead	Lead	
Lead-Lag Optimize?				Yes						Yes	Yes	
Recall Mode		Min		None						Min	Min	
Act Effct Green (s)		20.7			26.0						13.0	
Actuated g/C Ratio		0.43			0.53						0.27	
v/c Ratio		0.38			0.71						0.47	
Uniform Delay, d1		4.6			5.9						10.8	
Delay		4.7			7.0						12.3	
LOS		A			A						B	
Approach Delay		4.7			7.0						12.3	
Approach LOS		A			A						B	

Intersection Summary	
Area Type: CBD	
Cycle Length: 70	
Actuated Cycle Length: 48.7	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 8.0	Intersection LOS: A
Intersection Capacity Utilization 65.6%	ICU Level of Service B

Splits and Phases: 26: Court Street & Pearl Street

ø1	ø2	ø3
28 s	8 s	34 s

Section 5-8
ETC + 5 / Build / AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1515	0	0	1671	0	0	0	0	0	3074	0
Flt Permitted					0.684						0.996	
Satd. Flow (perm)	0	1515	0	0	1156	0	0	0	0	0	3074	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		187									118	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	96	237	121	484	0	0	0	0	39	459	166
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.75	0.94	0.67	0.88	0.25	0.25	0.25	0.25	0.67	0.89	0.83
Growth Factor	118%	100%	100%	100%	118%	118%	118%	118%	118%	100%	100%	118%
Heavy Vehicles (%)	0%	6%	1%	2%	1%	0%	0%	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	380	0	0	830	0	0	0	0	0	810	0
Turn Type				Perm						Perm		
Protected Phases		2			2						1	
Permitted Phases				2						1		
Detector Phases		2		2	2					1	1	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					8.0	8.0	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	35.0	35.0	0.0
Total Split (%)	0%	50%	0%	50%	50%	0%	0%	0%	0%	50%	50%	0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lead/Lag		Lag		Lag	Lag					Lead	Lead	
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0						32.0	
Actuated g/C Ratio		0.46			0.46						0.46	
v/c Ratio		0.48			1.57						0.55	
Uniform Delay, d1		6.1			19.0						11.5	
Delay		6.6			199.3						11.8	
LOS		A			F						B	
Approach Delay		6.6			199.3						11.8	
Approach LOS		A			F						B	

Intersection Summary

Area Type: CBD

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 8 (11%), Referenced to phase 2:EBWB, Start of Green

Natural Cycle: 70

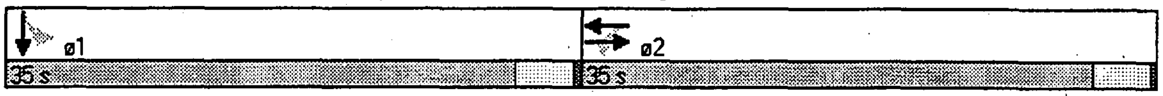
Control Type: Pretimed

Maximum v/c Ratio: 1.57

Intersection Signal Delay: 87.9 Intersection LOS: F

Intersection Capacity Utilization 109.8% ICU Level of Service F

Splits and Phases: 11: E. Chippewa Street & Washington Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1609	0	0	1563	0	0	1461	0	0	1553	0
Flt Permitted		0.836			0.884			0.997			0.976	
Satd. Flow (perm)	0	1365	0	0	1396	0	0	1461	0	0	1522	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			56			8			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	41	162	5	59	129	71	16	311	15	1	45	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.45	0.78	0.31	0.83	0.79	0.68	0.80	0.88	0.63	0.25	0.75	0.25
Growth Factor	100%	100%	118%	100%	100%	118%	118%	100%	118%	118%	100%	118%
Heavy Vehicles (%)	0%	6%	0%	0%	4%	4%	50%	13%	20%	0%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	318	0	0	357	0	0	405	0	0	70	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1	1		1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	49%	49%	0%	49%	49%	0%	51%	51%	0%	51%	51%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			28.0			28.0	
Actuated g/C Ratio		0.44			0.44			0.46			0.46	
v/c Ratio		0.52			0.55			0.60			0.10	
Uniform Delay, d1		12.0			10.3			12.0			8.6	
Delay		12.7			11.0			12.8			9.1	
LOS		B			B			B			A	
Approach Delay		12.7			11.0			12.8			9.1	
Approach LOS		B			B			B			A	

Intersection Summary
Area Type: CBD
Cycle Length: 61
Actuated Cycle Length: 61
Offset: 20 (33%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 12.0 Intersection LOS: B
Intersection Capacity Utilization 82.0% ICU Level of Service D

Splits and Phases: 6: E. Huron Street & Ellicott Street

ø1	ø2
31 s	30 s

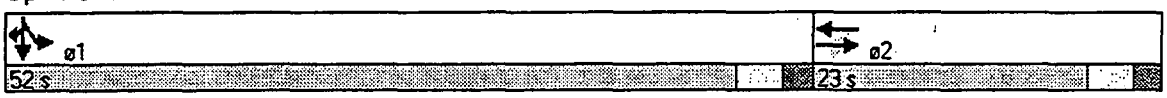
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	50
Trailing Detector (ft)		0		0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.953										0.850
Flt Protected					0.990						0.999	
Satd. Flow (prot)	0	2741	0	0	3191	0	0	0	0	0	4617	1439
Flt Permitted					0.990						0.999	
Satd. Flow (perm)	0	2741	0	0	3191	0	0	0	0	0	4617	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												92
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	126	35	75	357	0	0	0	0	54	3445	655
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.81	0.49	0.72	0.85	0.25	0.25	0.25	0.25	0.75	0.88	0.88
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	37%	0%	1%	0%	0%	0%	0%	2%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	184	84	123	496	0	0	0	0	72	3915	744
Lane Group Flow (vph)	0	268	0	0	619	0	0	0	0	0	3987	744
Turn Type				Perm						Split		Prot
Protected Phases		2			2					1	1	1
Permitted Phases				2	2							
Detector Phases		2		2	2					1	1	1
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	21.0
Total Split (s)	0.0	23.0	0.0	23.0	23.0	0.0	0.0	0.0	0.0	52.0	52.0	52.0
Total Split (%)	0%	31%	0%	31%	31%	0%	0%	0%	0%	69%	69%	69%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	2.0
Lead/Lag		Lag		Lag	Lag					Lead	Lead	Lead
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	Yes
Recall Mode		Max		Max	Max					Max	Max	Max
Act Effct Green (s)		20.0			20.0						49.0	49.0
Actuated g/C Ratio		0.27			0.27						0.65	0.65

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.37			0.73						1.32	0.77
Uniform Delay, d1		22.3			25.0						13.0	7.6
Delay		22.7			25.5						136.6	9.1
LOS		C			C						F	A
Approach Delay		22.7			25.5						116.5	
Approach LOS		C			C						F	

Intersection Summary

Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 20 (27%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 130
Control Type: Pretimed
Maximum v/c Ratio: 1.32
Intersection Signal Delay: 102.0 Intersection LOS: F
Intersection Capacity Utilization 123.5% ICU Level of Service H

Splits and Phases: 2: Genesee Street & Oak Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	2979	0	0	3060	0	0	5537	0	0	0	0
Flt Permitted		0.667						0.991				
Satd. Flow (perm)	0	2038	0	0	3060	0	0	5537	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			48				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	73	80	0	0	309	5	270	1398	128	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.91	0.74	0.25	0.82	0.63	0.75	0.91	0.74	0.25	0.25	0.25
Growth Factor	118%	118%	118%	118%	100%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	13%	0%	0%	6%	0%	3%	4%	5%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	213	0	0	386	0	0	2442	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		2			2		1	1				
Permitted Phases	2											
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.0	20.0			20.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	48.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	36%	36%	0%	0%	36%	0%	64%	64%	0%	0%	0%	0%
Yellow Time (s)	3.5	3.5			3.5		3.0	3.0				
All-Red Time (s)	0.5	0.5			0.5		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			45.0				
Actuated g/C Ratio		0.32			0.32			0.60				
v/c Ratio		0.33			0.39			0.73				
Uniform Delay, d1		19.3			19.7			10.4				
Delay		19.8			20.0			10.6				
LOS		B			B			B				
Approach Delay		19.8			20.0			10.6				
Approach LOS		B			B			B				

Intersection Summary

Area Type: CBD

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 48 (64%), Referenced to phase 2:EBWB, Start of Green

Natural Cycle: 50

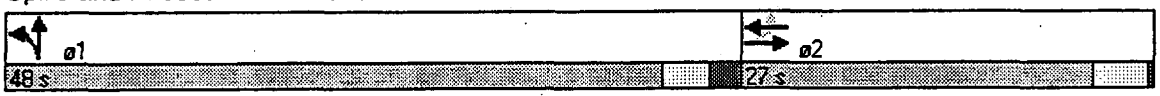
Control Type: Pretimed

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 12.5 Intersection LOS: B

Intersection Capacity Utilization 68.8% ICU Level of Service B

Splits and Phases: 16: Genesee Street & Elm Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰↑↱			↰↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	2811	0	0	2621	0	0	2641	0	0	3010	0
Flt Permitted		0.849			0.896			0.891			0.888	
Satd. Flow (perm)	0	2430	0	0	2372	0	0	2370	0	0	2695	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			85			14			21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	36	15	17	20	21	52	13	92	8	49	306	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.63	0.53	0.71	0.66	0.61	0.81	0.95	0.67	0.77	0.89	0.96
Growth Factor	100%	118%	118%	118%	118%	100%	118%	100%	118%	118%	100%	118%
Heavy Vehicles (%)	0%	27%	0%	5%	14%	15%	38%	16%	25%	8%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	104	0	0	156	0	0	130	0	0	452	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		27.0	27.0		27.0	27.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Act Effct Green (s)		10.6			10.6			23.3			23.3	
Actuated g/C Ratio		0.26			0.26			0.59			0.59	
v/c Ratio		0.16			0.23			0.09			0.28	
Uniform Delay, d1		7.0			5.1			2.9			3.5	
Delay		5.2			4.0			3.7			4.1	
LOS		A			A			A			A	
Approach Delay		5.2			4.0			3.7			4.1	
Approach LOS		A			A			A			A	

Intersection Summary	
Area Type: CBD	
Cycle Length: 60	
Actuated Cycle Length: 39.2	
Natural Cycle: 50	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.28	
Intersection Signal Delay: 4.1	Intersection LOS: A
Intersection Capacity Utilization 30.0%	ICU Level of Service A

Splits and Phases: 46: Scott Street & Washington Street

ø1	ø2
35 s	25 s

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (veh/h)	40	6	5	210	256	8
Peak Hour Factor	0.61	0.75	0.25	0.88	0.85	1.00
Hourly flow rate (veh/h)	66	9	24	239	301	9

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	69	6	16	247	301	9
Volume Left (vph)	66	0	0	0	301	0
Volume Right (vph)	0	0	0	239	0	9
Hadj (s)	0.3	0.0	0.7	-0.2	0.5	-0.4
Departure Headway (s)	6.0	5.7	5.9	5.1	5.8	5.0
Degree Utilization, x	0.11	0.01	0.03	0.35	0.49	0.01
Capacity (veh/h)	565	592	475	575	608	704
Control Delay (s)	8.6	7.6	7.9	9.6	13.1	6.9
Approach Delay (s)	8.5		9.5		12.9	
Approach LOS	A		A		B	

Intersection Summary			
Delay	11.0		
HCM Level of Service	B		
Intersection Capacity Utilization	41.9%	ICU Level of Service	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.905			0.909			0.993			0.983	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1710	1359	0	1221	1472	0	1593	1641	0	1464	1544	0
Flt Permitted				0.732			0.616			0.309		
Satd. Flow (perm)	1710	1359	0	941	1472	0	1033	1641	0	476	1544	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			145			7			17	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	8	9	17	117	232	90	373	15	47	129	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.67	0.45	0.75	0.67	0.87	0.87	0.81	0.63	0.78	0.83	0.50
Growth Factor	118%	118%	118%	100%	100%	100%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	0%	22%	33%	2%	8%	2%	3%	13%	11%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	14	24	23	175	267	122	543	28	71	183	24
Lane Group Flow (vph)	0	38	0	23	442	0	122	571	0	71	207	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	9.0		9.0	9.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		22.0		22.0	22.0		32.0	32.0		32.0	32.0	
Actuated g/C Ratio		0.37		0.37	0.37		0.53	0.53		0.53	0.53	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.07		0.07	0.70		0.22	0.65		0.28	0.25	
Uniform Delay, d1		4.5		12.3	10.4		7.4	9.8		7.7	6.8	
Delay		7.6		12.8	12.2		7.8	10.5		8.7	7.1	
LOS		A		B	B		A	B		A	A	
Approach Delay		7.6			12.2			10.1			7.5	
Approach LOS		A			B			B			A	

Intersection Summary

Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 50
Control Type: Pretimed
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 10.2 Intersection LOS: B
Intersection Capacity Utilization 76.4% ICU Level of Service C

Splits and Phases: 36: South Park Ave & Michigan Ave

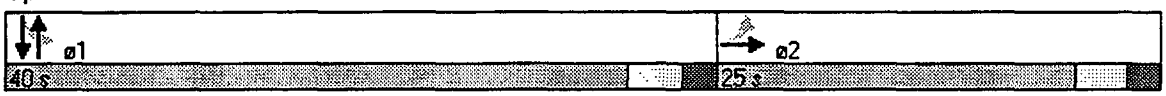
ø1	ø2
35 s	25 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.982						0.995				
Flt Protected		0.992									0.993	
Satd. Flow (prot)	0	3142	0	0	0	0	0	1638	0	0	3114	0
Flt Permitted		0.992									0.993	
Satd. Flow (perm)	0	3142	0	0	0	0	0	1638	0	0	3114	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24						5				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	70	364	42	0	0	0	0	134	4	124	744	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.87	0.62	0.90	0.90	0.90	0.90	0.70	0.50	0.95	0.96	0.90
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	4%	0%	13%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	103	494	80	0	0	0	0	226	9	131	775	0
Lane Group Flow (vph)	0	677	0	0	0	0	0	235	0	0	906	0
Turn Type	Perm									Perm		
Protected Phases		2						1			1	
Permitted Phases	2	2								1	1	
Detector Phases	2	2						1		1	1	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0						21.0		21.0	21.0	
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38%	38%	0%	0%	0%	0%	0%	62%	0%	62%	62%	0%
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lead/Lag	Lag	Lag						Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes						Yes		Yes	Yes	
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		22.0						37.0			37.0	
Actuated g/C Ratio		0.34						0.57			0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.63						0.25			0.51	
Uniform Delay, d1		17.3						6.9			8.5	
Delay		17.7						7.1			8.7	
LOS		B						A			A	
Approach Delay		17.7						7.1			8.7	
Approach LOS		B						A			A	

Intersection Summary
Area Type: CBD
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 11.9 Intersection LOS: B
Intersection Capacity Utilization 73.2% ICU Level of Service C

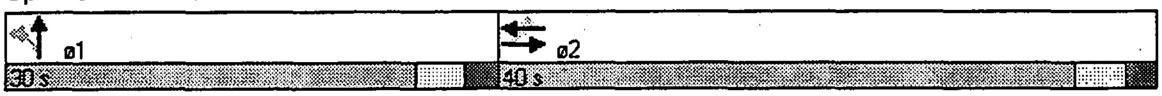
Splits and Phases: 31: W.Huron St. & Elmwood Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	2813	0	0	2955	0	0	2859	0	0	0	0
Flt Permitted		0.812						0.993				
Satd. Flow (perm)	0	2300	0	0	2955	0	0	2859	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					143			37				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	28	245	0	0	365	179	50	388	69	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.50	0.81	0.90	0.90	0.86	0.84	0.50	0.82	0.75	0.90	0.90	0.90
Growth Factor	100%	118%	118%	118%	118%	100%	100%	100%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	17%	0%	0%	5%	5%	44%	3%	10%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	413	0	0	714	0	0	682	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		2			2			1				
Permitted Phases	2				2		1					
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0
Total Split (%)	57%	57%	0%	0%	57%	0%	43%	43%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		37.0			37.0			27.0				
Actuated g/C Ratio		0.53			0.53			0.39				
v/c Ratio		0.34			0.44			0.61				
Uniform Delay, d1		9.5			7.8			16.2				
Delay		9.7			8.0			16.6				
LOS		A			A			B				
Approach Delay		9.7			8.0			16.6				
Approach LOS		A			A			B				

Intersection Summary	
Area Type: CBD	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Natural Cycle: 45	
Control Type: Pretimed	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 51.2%	ICU Level of Service A

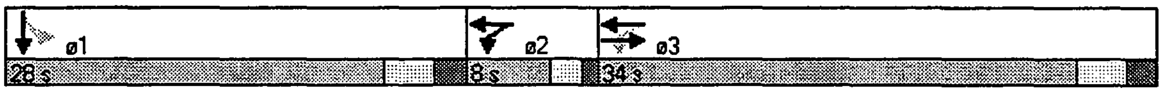
Splits and Phases: 21: Court Street & Franklin Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	2701	0	0	3077	0	0	0	0	0	4127	0
Flt Permitted					0.638						0.992	
Satd. Flow (perm)	0	2701	0	0	1991	0	0	0	0	0	4127	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		267									132	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	235	238	249	550	0	0	0	0	48	311	73
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.83	0.89	0.92	0.84	0.90	0.90	0.90	0.90	0.50	0.82	0.55
Growth Factor	118%	100%	100%	100%	100%	118%	118%	118%	118%	100%	100%	118%
Heavy Vehicles (%)	0%	12%	11%	2%	5%	0%	0%	0%	0%	8%	11%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	550	0	0	926	0	0	0	0	0	632	0
Turn Type				D.P+P						Perm		
Protected Phases		3		2	2 3						1	
Permitted Phases				3						1		
Detector Phases		3		2	2 3					1	1	
Minimum Initial (s)		4.0		4.0						4.0	4.0	
Minimum Split (s)		21.0		8.0						9.0	9.0	
Total Split (s)	0.0	34.0	0.0	8.0	42.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0
Total Split (%)	0%	49%	0%	11%	60%	0%	0%	0%	0%	40%	40%	0%
Yellow Time (s)		3.0		2.0						3.0	3.0	
All-Red Time (s)		2.0		1.0						2.0	2.0	
Lead/Lag				Lag						Lead	Lead	
Lead-Lag Optimize?				Yes						Yes	Yes	
Recall Mode		Min		None						Min	Min	
Act Effct Green (s)		23.9			29.2						14.6	
Actuated g/C Ratio		0.45			0.55						0.27	
v/c Ratio		0.41			0.77						0.51	
Uniform Delay, d1		4.6			7.0						12.5	
Delay		4.9			9.3						13.7	
LOS		A			A						B	
Approach Delay		4.9			9.3						13.7	
Approach LOS		A			A						B	

Intersection Summary
Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 53.4
Natural Cycle: 40
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 9.5 Intersection LOS: A
Intersection Capacity Utilization 71.3% ICU Level of Service C

Splits and Phases: 26: Court Street & Pearl Street



Section 5-9
ETC / Build / PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1543	0	0	1668	0	0	0	0	0	3028	0
Flt Permitted					0.658						0.994	
Satd. Flow (perm)	0	1543	0	0	1114	0	0	0	0	0	3028	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		112									264	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	155	158	106	258	0	0	0	0	54	341	143
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.84	0.72	0.76	0.88	0.25	0.25	0.25	0.25	0.60	1.00	0.57
Growth Factor	109%	100%	100%	100%	109%	109%	109%	109%	109%	100%	100%	109%
Heavy Vehicles (%)	0%	6%	0%	1%	1%	0%	0%	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	404	0	0	459	0	0	0	0	0	704	0
Turn Type				Perm						Perm		
Protected Phases		2			2						1	
Permitted Phases				2						1		
Detector Phases		2		2	2					1	1	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	35.0	35.0	0.0
Total Split (%)	0%	50%	0%	50%	50%	0%	0%	0%	0%	50%	50%	0%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	
Lead/Lag		Lag		Lag	Lag					Lead	Lead	
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0						32.0	
Actuated g/C Ratio		0.46			0.46						0.46	
v/c Ratio		0.53			0.90						0.46	
Uniform Delay, d1		9.4			17.5						7.7	
Delay		9.9			32.6						7.9	
LOS		A			C						A	
Approach Delay		9.9			32.6						7.9	
Approach LOS		A			C						A	

Intersection Summary	
Area Type: CBD	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Natural Cycle: 50	
Control Type: Pretimed	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 15.7	Intersection LOS: B
Intersection Capacity Utilization 86.1%	ICU Level of Service D

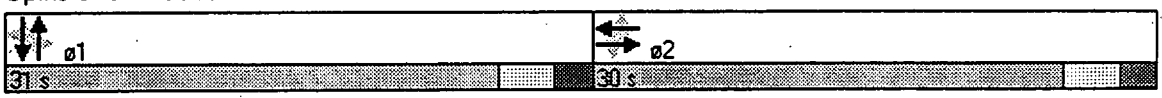
Splits and Phases: 11: E. Chippewa Street & Washington Street

ø1	ø2
35 s	35 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1647	0	0	1605	0	0	1578	0	0	1649	0
Flt Permitted		0.962			0.769			0.997			0.816	
Satd. Flow (perm)	0	1593	0	0	1266	0	0	1578	0	0	1368	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			20			20				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	13	175	30	21	41	14	13	340	45	23	61	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.46	0.86	0.56	0.25	0.79	0.58	0.46	0.86	0.63	0.58	0.68	0.25
Growth Factor	109%	100%	100%	100%	100%	109%	109%	100%	109%	109%	100%	109%
Heavy Vehicles (%)	0%	1%	0%	0%	5%	0%	46%	3%	4%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	288	0	0	162	0	0	504	0	0	133	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1	1		1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		21.0	21.0		21.0	21.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	49%	49%	0%	49%	49%	0%	51%	51%	0%	51%	51%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			28.0			28.0	
Actuated g/C Ratio		0.44			0.44			0.46			0.46	
v/c Ratio		0.40			0.28			0.69			0.21	
Uniform Delay, d1		10.4			9.4			12.4			9.9	
Delay		10.9			9.9			13.2			10.3	
LOS		B			A			B			B	
Approach Delay		10.9			9.9			13.2			10.3	
Approach LOS		B			A			B			B	

Intersection Summary	
Area Type: CBD	
Cycle Length: 61	
Actuated Cycle Length: 61	
Offset: 35 (57%), Referenced to phase 2:EBWB, Start of Green	
Natural Cycle: 40	
Control Type: Pretimed	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 74.3%	ICU Level of Service C

Splits and Phases: 6: E. Huron Street & Ellicott Street



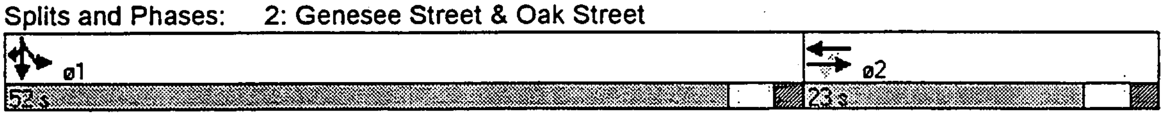
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	50
Trailing Detector (ft)		0		0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.972										0.850
Flt Protected					0.985						0.999	
Satd. Flow (prot)	0	3058	0	0	3157	0	0	0	0	0	4573	1439
Flt Permitted					0.985						0.999	
Satd. Flow (perm)	0	3058	0	0	3157	0	0	0	0	0	4573	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5										214
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	499	103	46	108	0	0	0	0	27	2169	167
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.83	0.74	0.82	0.87	0.25	0.25	0.25	0.25	0.92	0.86	0.78
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	13%	0%	2%	0%	0%	0%	0%	0%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	655	152	61	135	0	0	0	0	29	2522	214
Lane Group Flow (vph)	0	807	0	0	196	0	0	0	0	0	2551	214
Turn Type				Perm						Split		Prot
Protected Phases		2			2					1	1	1
Permitted Phases				2	2							
Detector Phases		2		2	2					1	1	1
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	21.0
Total Split (s)	0.0	23.0	0.0	23.0	23.0	0.0	0.0	0.0	0.0	52.0	52.0	52.0
Total Split (%)	0%	31%	0%	31%	31%	0%	0%	0%	0%	69%	69%	69%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	2.0
Lead/Lag		Lag		Lag	Lag					Lead	Lead	Lead
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	Yes
Recall Mode		Max		Max	Max					Max	Max	Max
Act Effct Green (s)		20.0			20.0						49.0	49.0
Actuated g/C Ratio		0.27			0.27						0.65	0.65

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.99			0.23						0.85	0.21
Uniform Delay, d1		27.1			21.5						10.2	0.0
Delay		50.1			21.8						10.7	0.8
LOS		D			C						B	A
Approach Delay		50.1			21.8						10.0	
Approach LOS		D			C						A	

Intersection Summary

Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 20 (27%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 19.2 Intersection LOS: B
Intersection Capacity Utilization 96.4% ICU Level of Service E

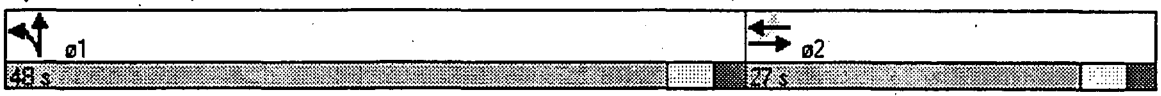
Splits and Phases: 2: Genesee Street & Oak Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3123	0	0	3012	0	0	5695	0	0	0	0
Flt Permitted		0.670						0.998				
Satd. Flow (perm)	0	2162	0	0	3012	0	0	5695	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			11				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	361	179	0	0	161	13	47	1582	32	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.73	0.25	0.25	0.74	0.65	0.78	0.84	0.67	0.25	0.25	0.25
Growth Factor	109%	109%	109%	109%	100%	109%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	2%	0%	0%	7%	0%	21%	2%	6%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	771	0	0	240	0	0	2171	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		2			2		1	1				
Permitted Phases	2											
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	48.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	36%	36%	0%	0%	36%	0%	64%	64%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			45.0				
Actuated g/C Ratio		0.32			0.32			0.60				
v/c Ratio		1.58dl			0.25			0.63				
Uniform Delay, d1		25.5			18.0			9.6				
Delay		84.5			18.3			9.8				
LOS		F			B			A				
Approach Delay		84.5			18.3			9.8				
Approach LOS		F			B			A				

Intersection Summary	
Area Type: CBD	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 33 (44%), Referenced to phase 2:EBWB, Start of Green	
Natural Cycle: 45	
Control Type: Pretimed	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 28.5	Intersection LOS: C
Intersection Capacity Utilization 83.6%	ICU Level of Service D
dl Defacto Left Lane. Recode with 1 though lane as a left lane.	

Splits and Phases: 16: Genesee Street & Elm Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	2762	0	0	2861	0	0	3068	0	0	2718	0
Flt Permitted		0.761			0.939			0.901			0.840	
Satd. Flow (perm)	0	2160	0	0	2694	0	0	2778	0	0	2306	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		43			128			9			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	57	14	27	8	45	109	27	260	7	45	213	13
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.71	0.70	0.68	0.67	0.75	0.85	0.75	0.82	0.58	0.80	0.92	0.81
Growth Factor	100%	109%	109%	109%	109%	100%	109%	100%	109%	109%	100%	109%
Heavy Vehicles (%)	9%	0%	15%	13%	2%	2%	33%	1%	14%	58%	8%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	145	0	0	206	0	0	369	0	0	310	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		27.0	27.0		27.0	27.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Act Effct Green (s)		11.4			11.4			21.6			21.6	
Actuated g/C Ratio		0.28			0.28			0.56			0.56	
v/c Ratio		0.23			0.24			0.24			0.24	
Uniform Delay, d1		7.2			3.8			3.9			3.8	
Delay		5.3			3.4			4.5			4.5	
LOS		A			A			A			A	
Approach Delay		5.3			3.4			4.5			4.5	
Approach LOS		A			A			A			A	

Intersection Summary	
Area Type: CBD	
Cycle Length: 60	
Actuated Cycle Length: 38.3	
Natural Cycle: 50	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.24	
Intersection Signal Delay: 4.4	Intersection LOS: A
Intersection Capacity Utilization 46.5%	ICU Level of Service A

Splits and Phases: 46: Scott Street & Washington Street

ø1	ø2
35 s	25 s

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (veh/h)	1	28	27	215	230	13
Peak Hour Factor	0.25	0.88	0.48	0.55	0.60	0.65
Hourly flow rate (veh/h)	4	32	61	391	383	22

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	15	21	41	411	383	22
Volume Left (vph)	4	0	0	0	383	0
Volume Right (vph)	0	0	0	391	0	22
Hadj (s)	0.1	0.0	0.0	-0.5	0.4	-0.6
Departure Headway (s)	6.4	6.3	5.7	5.2	6.1	5.2
Degree Utilization, x	0.03	0.04	0.06	0.59	0.65	0.03
Capacity (veh/h)	523	530	506	613	576	686
Control Delay (s)	8.3	8.3	7.9	14.3	18.6	7.1
Approach Delay (s)	8.3		13.8		17.9	
Approach LOS	A		B		C	

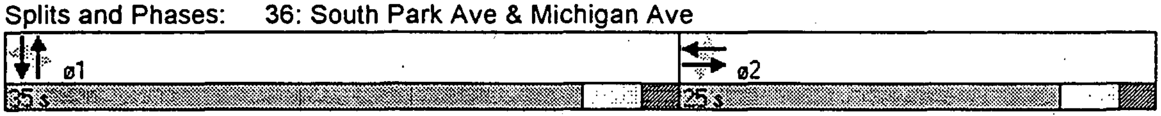
Intersection Summary			
Delay	15.4		
HCM Level of Service	C		
Intersection Capacity Utilization	46.2%	ICU Level of Service	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.911			0.904			0.960			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	1549	0	1221	1489	0	1624	1464	0	1608	1690	0
Flt Permitted	0.591			0.456			0.223			0.673		
Satd. Flow (perm)	1011	1549	0	586	1489	0	381	1464	0	1139	1690	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		138			123			35			2	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	14	95	119	11	49	106	12	68	22	153	523	4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.85	0.73	0.50	0.70	0.86	0.60	0.77	0.69	0.96	0.84	0.50
Growth Factor	109%	109%	109%	100%	100%	100%	109%	109%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	0%	1%	33%	0%	6%	0%	10%	18%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	22	122	178	22	70	123	22	96	35	174	679	9
Lane Group Flow (vph)	22	300	0	22	193	0	22	131	0	174	688	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	9.0		9.0	9.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)	22.0	22.0		22.0	22.0		32.0	32.0		32.0	32.0	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.53	0.53		0.53	0.53	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.06	0.46		0.10	0.31		0.11	0.16		0.29	0.76	
Uniform Delay, d1	12.3	7.3		12.5	4.6		6.9	5.1		7.7	11.0	
Delay	12.7	8.0		13.2	5.9		7.5	5.6		8.1	13.2	
LOS	B	A		B	A		A	A		A	B	
Approach Delay		8.3			6.6			5.9			12.2	
Approach LOS		A			A			A			B	

Intersection Summary
Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 55
Control Type: Pretimed
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 10.0 Intersection LOS: B
Intersection Capacity Utilization 72.8% ICU Level of Service C

Splits and Phases: 36: South Park Ave & Michigan Ave



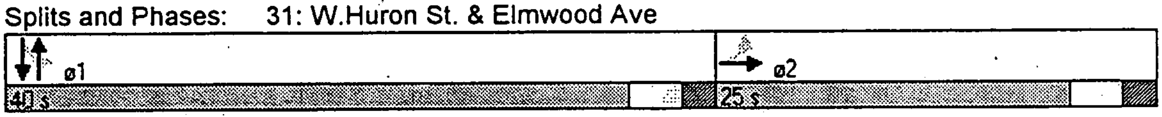
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.981						0.983				
Flt Protected		0.989									0.995	
Satd. Flow (prot)	0	3105	0	0	0	0	0	1666	0	0	3146	0
Flt Permitted		0.989									0.995	
Satd. Flow (perm)	0	3105	0	0	0	0	0	1666	0	0	3146	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27						19				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	28	144	15	0	0	0	0	152	21	53	679	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.54	0.92	0.50	0.90	0.90	0.90	0.90	0.79	0.75	0.71	0.93	0.90
Growth Factor	109%	109%	109%	109%	109%	109%	109%	109%	109%	100%	100%	100%
Heavy Vehicles (%)	4%	1%	0%	0%	0%	0%	0%	1%	0%	20%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	57	171	33	0	0	0	0	210	31	75	730	0
Lane Group Flow (vph)	0	261	0	0	0	0	0	241	0	0	805	0
Turn Type	Perm									Perm		
Protected Phases		2						1			1	
Permitted Phases	2	2								1	1	
Detector Phases	2	2						1		1	1	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0						21.0		21.0	21.0	
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38%	38%	0%	0%	0%	0%	0%	62%	0%	62%	62%	0%
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lead/Lag	Lag	Lag						Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes						Yes		Yes	Yes	
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		22.0						37.0			37.0	
Actuated g/C Ratio		0.34						0.57			0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.24						0.25			0.45	
Uniform Delay, d1		13.8						6.4			8.1	
Delay		14.0						6.7			8.3	
LOS		B						A			A	
Approach Delay		14.0						6.7			8.3	
Approach LOS		B						A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 20 (31%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.45
Intersection Signal Delay: 9.1 Intersection LOS: A
Intersection Capacity Utilization 57.4% ICU Level of Service A

Splits and Phases: 31: W.Huron St. & Elmwood Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3044	0	0	2989	0	0	3063	0	0	0	0
Flt Permitted		0.784						0.994				
Satd. Flow (perm)	0	2411	0	0	2989	0	0	3063	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					180			51				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	25	133	0	0	382	205	60	339	87	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.50	0.69	0.90	0.90	0.82	0.83	0.71	0.71	0.68	0.50	0.50	0.50
Growth Factor	100%	109%	109%	109%	109%	100%	100%	100%	109%	109%	109%	109%
Heavy Vehicles (%)	0%	7%	0%	0%	5%	0%	5%	1%	5%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	260	0	0	755	0	0	701	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		2			2			1				
Permitted Phases	2				2		1					
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0
Total Split (%)	57%	57%	0%	0%	57%	0%	43%	43%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		37.0			37.0			27.0				
Actuated g/C Ratio		0.53			0.53			0.39				
v/c Ratio		0.20			0.45			0.58				
Uniform Delay, d1		8.7			7.4			15.6				
Delay		8.9			7.7			16.0				
LOS		A			A			B				
Approach Delay		8.9			7.7			16.0				
Approach LOS		A			A			B				

Intersection Summary	
Area Type: CBD	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Natural Cycle: 45	
Control Type: Pretimed	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 11.2	Intersection LOS: B
Intersection Capacity Utilization 53.4%	ICU Level of Service A

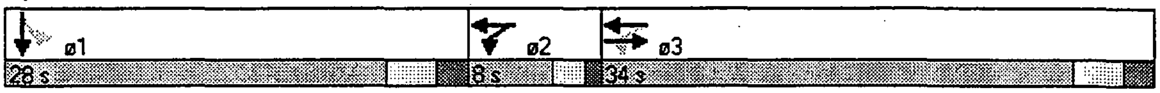
Splits and Phases: 21: Court Street & Franklin Street

ø1	ø2
30 s	40 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	2912	0	0	3120	0	0	0	0	0	4189	0
Flt Permitted					0.864						0.994	
Satd. Flow (perm)	0	2912	0	0	2712	0	0	0	0	0	4189	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		93									216	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	207	97	52	396	0	0	0	0	42	293	119
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.67	0.87	0.73	0.75	0.90	0.90	0.90	0.90	0.55	0.73	0.50
Growth Factor	109%	100%	100%	100%	100%	109%	109%	109%	109%	109%	100%	109%
Heavy Vehicles (%)	0%	5%	13%	0%	4%	0%	0%	0%	0%	0%	8%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	420	0	0	599	0	0	0	0	0	743	0
Turn Type				D.P+P						Perm		
Protected Phases		3		2	2 3						1	
Permitted Phases				3						1		
Detector Phases		3		2	2 3					1	1	
Minimum Initial (s)		4.0		4.0						4.0	4.0	
Minimum Split (s)		21.0		8.0						9.0	9.0	
Total Split (s)	0.0	34.0	0.0	8.0	42.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0
Total Split (%)	0%	49%	0%	11%	60%	0%	0%	0%	0%	40%	40%	0%
Yellow Time (s)		3.0		2.0						3.0	3.0	
All-Red Time (s)		2.0		1.0						2.0	2.0	
Lead/Lag				Lag						Lead	Lead	
Lead-Lag Optimize?				Yes						Yes	Yes	
Recall Mode		Min		None						Min	Min	
Act Effct Green (s)		14.2			19.4						13.9	
Actuated g/C Ratio		0.33			0.45						0.33	
v/c Ratio		0.41			0.47						0.49	
Uniform Delay, d1		8.2			5.9						7.8	
Delay		8.7			7.0						8.5	
LOS		A			A						A	
Approach Delay		8.7			7.0						8.5	
Approach LOS		A			A						A	

Intersection Summary	
Area Type: CBD	
Cycle Length: 70	
Actuated Cycle Length: 42.7	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 8.0	Intersection LOS: A
Intersection Capacity Utilization 58.9%	ICU Level of Service A

Splits and Phases: 26: Court Street & Pearl Street

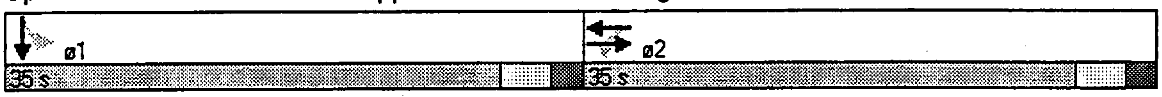


Section 5-10
ETC + 5 / Build / PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1541	0	0	1668	0	0	0	0	0	3024	0
Flt Permitted					0.615						0.994	
Satd. Flow (perm)	0	1541	0	0	1041	0	0	0	0	0	3024	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		114									275	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	165	170	113	258	0	0	0	0	57	366	143
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.84	0.72	0.76	0.88	0.25	0.25	0.25	0.25	0.60	1.00	0.57
Growth Factor	118%	100%	100%	100%	118%	118%	118%	118%	118%	100%	100%	118%
Heavy Vehicles (%)	0%	6%	0%	1%	1%	0%	0%	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	432	0	0	495	0	0	0	0	0	757	0
Turn Type				Perm						Perm		
Protected Phases		2			2						1	
Permitted Phases				2						1		
Detector Phases		2		2	2					1	1	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	35.0	35.0	0.0
Total Split (%)	0%	50%	0%	50%	50%	0%	0%	0%	0%	50%	50%	0%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	
Lead/Lag		Lag		Lag	Lag					Lead	Lead	
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0						32.0	
Actuated g/C Ratio		0.46			0.46						0.46	
v/c Ratio		0.56			1.04						0.49	
Uniform Delay, d1		9.8			19.0						7.9	
Delay		10.4			65.9						8.2	
LOS		B			E						A	
Approach Delay		10.4			65.9						8.2	
Approach LOS		B			E						A	

Intersection Summary	
Area Type: CBD	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Natural Cycle: 55	
Control Type: Pretimed	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 25.7	Intersection LOS: C
Intersection Capacity Utilization 91.8%	ICU Level of Service E

Splits and Phases: 11: E. Chippewa Street & Washington Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1664	0	0	1552	0	0	1578	0	0	1649	0
Flt Permitted		0.910			0.988			0.997			0.812	
Satd. Flow (perm)	0	1533	0	0	1536	0	0	1578	0	0	1361	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			64			20				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	35	198	9	1	42	37	13	367	45	23	65	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.46	0.86	0.56	0.25	0.79	0.58	0.46	0.86	0.63	0.58	0.68	0.25
Growth Factor	100%	100%	118%	118%	100%	100%	118%	100%	118%	118%	100%	118%
Heavy Vehicles (%)	0%	1%	0%	0%	5%	0%	46%	3%	4%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	325	0	0	122	0	0	544	0	0	143	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1	1		1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		21.0	21.0		21.0	21.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	49%	49%	0%	49%	49%	0%	51%	51%	0%	51%	51%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			28.0			28.0	
Actuated g/C Ratio		0.44			0.44			0.46			0.46	
v/c Ratio		0.48			0.17			0.74			0.23	
Uniform Delay, d1		11.7			4.7			12.9			10.0	
Delay		12.3			5.8			15.4			10.4	
LOS		B			A			B			B	
Approach Delay		12.3			5.8			15.4			10.4	
Approach LOS		B			A			B			B	

Intersection Summary
Area Type: CBD
Cycle Length: 61
Actuated Cycle Length: 61
Offset: 35 (57%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 40
Control Type: Pretimed
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 12.8 Intersection LOS: B
Intersection Capacity Utilization 72.1% ICU Level of Service C

Splits and Phases: 6: E. Huron Street & Ellicott Street

ø1	ø2
31 s	30 s

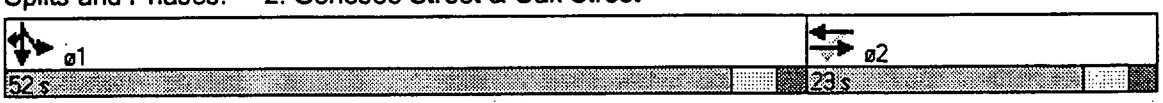
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	50
Trailing Detector (ft)		0		0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.972										0.850
Flt Protected					0.985						0.999	
Satd. Flow (prot)	0	3058	0	0	3157	0	0	0	0	0	4573	1439
Flt Permitted					0.985						0.999	
Satd. Flow (perm)	0	3058	0	0	3157	0	0	0	0	0	4573	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3										229
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	499	103	46	108	0	0	0	0	29	2327	179
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.83	0.74	0.82	0.87	0.25	0.25	0.25	0.25	0.92	0.86	0.78
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	13%	0%	2%	0%	0%	0%	0%	0%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	709	164	66	146	0	0	0	0	32	2706	229
Lane Group Flow (vph)	0	873	0	0	212	0	0	0	0	0	2738	229
Turn Type				Perm						Split		Prot
Protected Phases		2			2					1	1	1
Permitted Phases				2	2							
Detector Phases		2		2	2					1	1	1
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		21.0		21.0	21.0					21.0	21.0	21.0
Total Split (s)	0.0	23.0	0.0	23.0	23.0	0.0	0.0	0.0	0.0	52.0	52.0	52.0
Total Split (%)	0%	31%	0%	31%	31%	0%	0%	0%	0%	69%	69%	69%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	2.0
Lead/Lag		Lag		Lag	Lag					Lead	Lead	Lead
Lead-Lag Optimize?		Yes		Yes	Yes					Yes	Yes	Yes
Recall Mode		Max		Max	Max					Max	Max	Max
Act Effct Green (s)		20.0			20.0						49.0	49.0
Actuated g/C Ratio		0.27			0.27						0.65	0.65

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		1.07			0.25						0.92	0.22
Uniform Delay, d1		27.4			21.6						11.2	0.0
Delay		70.9			21.9						14.0	0.8
LOS		E			C						B	A
Approach Delay		70.9			21.9						13.0	
Approach LOS		E			C						B	

Intersection Summary

Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 20 (27%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 25.9 Intersection LOS: C
Intersection Capacity Utilization 103.0% ICU Level of Service F

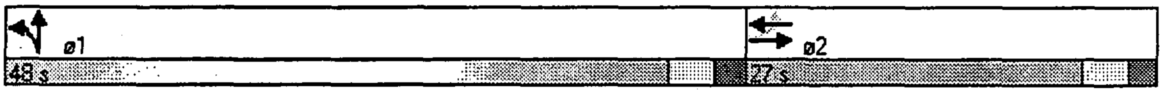
Splits and Phases: 2: Genesee Street & Oak Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3123	0	0	3009	0	0	5695	0	0	0	0
Flt Permitted		0.679						0.998				
Satd. Flow (perm)	0	2191	0	0	3009	0	0	5695	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			11				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	361	179	0	0	147	13	47	1582	32	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.73	0.25	0.25	0.74	0.65	0.78	0.84	0.67	0.25	0.25	0.25
Growth Factor	118%	118%	118%	118%	100%	118%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	2%	0%	0%	7%	0%	21%	2%	6%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	835	0	0	223	0	0	2349	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		2			2		1	1				
Permitted Phases	2											
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	48.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	36%	36%	0%	0%	36%	0%	64%	64%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			45.0				
Actuated g/C Ratio		0.32			0.32			0.60				
v/c Ratio		1.67dl			0.23			0.69				
Uniform Delay, d1		25.5			18.1			10.1				
Delay		108.0			18.4			10.3				
LOS		F			B			B				
Approach Delay		108.0			18.4			10.3				
Approach LOS		F			B			B				

Intersection Summary
Area Type: CBD
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 33 (44%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 1.19
Intersection Signal Delay: 34.8 Intersection LOS: C
Intersection Capacity Utilization 88.6% ICU Level of Service D
dl Defacto Left Lane. **Recode with 1 though lane as a left lane.**

Splits and Phases: 16: Genesee Street & Elm Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	2759	0	0	2861	0	0	3068	0	0	2714	0
Flt Permitted		0.754			0.938			0.897			0.831	
Satd. Flow (perm)	0	2138	0	0	2692	0	0	2766	0	0	2278	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		47			138			9			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	60	14	27	8	45	117	27	280	7	45	228	13
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.71	0.70	0.68	0.67	0.75	0.85	0.75	0.82	0.58	0.80	0.92	0.81
Growth Factor	100%	118%	118%	118%	118%	100%	118%	100%	118%	118%	100%	118%
Heavy Vehicles (%)	9%	0%	15%	13%	2%	2%	33%	1%	14%	58%	8%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	156	0	0	223	0	0	397	0	0	333	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		27.0	27.0		27.0	27.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Act Effct Green (s)		10.8			10.8			20.2			20.2	
Actuated g/C Ratio		0.29			0.29			0.57			0.57	
v/c Ratio		0.24			0.26			0.25			0.26	
Uniform Delay, d1		6.9			3.7			3.9			3.8	
Delay		5.6			3.6			4.6			4.6	
LOS		A			A			A			A	
Approach Delay		5.6			3.6			4.6			4.6	
Approach LOS		A			A			A			A	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (veh/h)	21	7	27	231	204	13
Peak Hour Factor	0.25	0.88	0.48	0.55	0.60	0.65
Hourly flow rate (veh/h)	84	9	66	420	340	24

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	87	6	44	442	340	24
Volume Left (vph)	84	0	0	0	340	0
Volume Right (vph)	0	0	0	420	0	24
Hadj (s)	0.2	0.0	0.0	-0.5	0.4	-0.6
Departure Headway (s)	6.5	6.3	6.0	5.4	6.4	5.4
Degree Utilization, x	0.16	0.01	0.07	0.67	0.60	0.04
Capacity (veh/h)	522	535	506	601	549	650
Control Delay (s)	9.4	8.1	8.2	17.4	17.3	7.4
Approach Delay (s)	9.4		16.6		16.7	
Approach LOS	A		C		C	

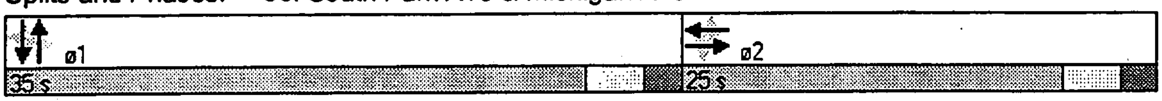
Intersection Summary			
Delay	15.9		
HCM Level of Service	C		
Intersection Capacity Utilization	53.3%	ICU Level of Service	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.911			0.904			0.960			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	1549	0	1221	1489	0	1624	1464	0	1608	1690	0
Flt Permitted	0.578			0.427			0.183			0.666		
Satd. Flow (perm)	988	1549	0	549	1489	0	313	1464	0	1128	1690	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		138			130			38			2	
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	14	95	119	11	51	112	12	68	22	153	523	4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.85	0.73	0.50	0.70	0.86	0.60	0.77	0.69	0.96	0.84	0.50
Growth Factor	118%	118%	118%	100%	100%	100%	118%	118%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	0%	1%	33%	0%	6%	0%	10%	18%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	24	132	192	22	73	130	24	104	38	188	735	9
Lane Group Flow (vph)	24	324	0	22	203	0	24	142	0	188	744	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phases	2	2		2	2		1	1		1	1	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	9.0		9.0	9.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)	22.0	22.0		22.0	22.0		32.0	32.0		32.0	32.0	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.53	0.53		0.53	0.53	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.07	0.49		0.11	0.32		0.14	0.18		0.31	0.82	
Uniform Delay, d1	12.3	7.9		12.5	4.6		7.1	5.2		7.8	11.6	
Delay	12.7	8.6		13.3	5.8		7.9	5.5		8.3	16.3	
LOS	B	A		B	A		A	A		A	B	
Approach Delay		8.8			6.6			5.9			14.7	
Approach LOS		A			A			A			B	

Intersection Summary
Area Type: CBD
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 11.5 Intersection LOS: B
Intersection Capacity Utilization 77.7% ICU Level of Service C

Splits and Phases: 36: South Park Ave & Michigan Ave



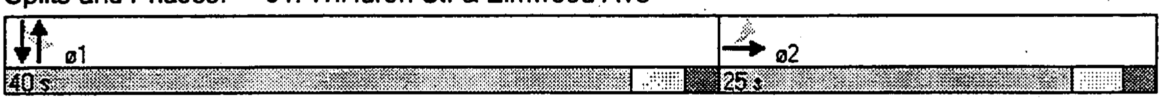
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱						↑↱			↰↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.981						0.983				
Flt Protected		0.989									0.995	
Satd. Flow (prot)	0	3105	0	0	0	0	0	1666	0	0	3146	0
Flt Permitted		0.989									0.995	
Satd. Flow (perm)	0	3105	0	0	0	0	0	1666	0	0	3146	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26						19				
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	28	144	15	0	0	0	0	152	21	56	727	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.54	0.92	0.50	0.90	0.90	0.90	0.90	0.79	0.75	0.71	0.93	0.90
Growth Factor	118%	118%	118%	118%	118%	118%	118%	118%	118%	100%	100%	100%
Heavy Vehicles (%)	4%	1%	0%	0%	0%	0%	0%	1%	0%	20%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	61	185	35	0	0	0	0	227	33	79	782	0
Lane Group Flow (vph)	0	281	0	0	0	0	0	260	0	0	861	0
Turn Type	Perm									Perm		
Protected Phases		2						1			1	
Permitted Phases	2	2								1	1	
Detector Phases	2	2						1		1	1	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0						21.0		21.0	21.0	
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38%	38%	0%	0%	0%	0%	0%	62%	0%	62%	62%	0%
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lead/Lag	Lag	Lag						Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes						Yes		Yes	Yes	
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		22.0						37.0			37.0	
Actuated g/C Ratio		0.34						0.57			0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.26						0.27			0.48	
Uniform Delay, d1		14.0						6.5			8.3	
Delay		14.3						6.8			8.5	
LOS		B						A			A	
Approach Delay		14.3						6.8			8.5	
Approach LOS		B						A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 20 (31%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 9.4 Intersection LOS: A
Intersection Capacity Utilization 61.0% ICU Level of Service B

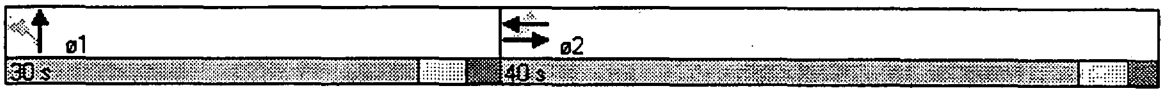
Splits and Phases: 31: W.Huron St. & Elmwood Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑			↑↱			↰↑↱				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3046	0	0	2982	0	0	3072	0	0	0	0
Flt Permitted		0.771						0.994				
Satd. Flow (perm)	0	2370	0	0	2982	0	0	3072	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					159			46				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	26	133	0	0	382	241	64	401	87	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.50	0.69	0.90	0.90	0.82	0.83	0.71	0.71	0.68	0.50	0.50	0.50
Growth Factor	100%	118%	118%	118%	118%	100%	100%	100%	118%	118%	118%	118%
Heavy Vehicles (%)	0%	7%	0%	0%	5%	0%	5%	1%	5%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	279	0	0	840	0	0	806	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		2			2			1				
Permitted Phases	2				2		1					
Detector Phases	2	2			2		1	1				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		21.0	21.0				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0
Total Split (%)	57%	57%	0%	0%	57%	0%	43%	43%	0%	0%	0%	0%
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lead/Lag	Lag	Lag			Lag		Lead	Lead				
Lead-Lag Optimize?	Yes	Yes			Yes		Yes	Yes				
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		37.0			37.0			27.0				
Actuated g/C Ratio		0.53			0.53			0.39				
v/c Ratio		0.22			0.51			0.66				
Uniform Delay, d1		8.8			8.3			16.6				
Delay		9.0			8.6			17.0				
LOS		A			A			B				
Approach Delay		9.0			8.6			17.0				
Approach LOS		A			A			B				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 12.2		Intersection LOS: B	
Intersection Capacity Utilization 59.5%		ICU Level of Service A	

Splits and Phases: 21: Court Street & Franklin Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱			↰↑						↰↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	2916	0	0	3119	0	0	0	0	0	4197	0
Flt Permitted					0.860						0.992	
Satd. Flow (perm)	0	2916	0	0	2699	0	0	0	0	0	4197	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		89									208	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1800			1800			1800			1800	
Travel Time (s)		40.9			40.9			40.9			40.9	
Volume (vph)	0	223	101	54	427	0	0	0	0	70	304	119
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.67	0.87	0.73	0.75	0.90	0.90	0.90	0.90	0.55	0.73	0.50
Growth Factor	118%	100%	100%	100%	100%	118%	118%	118%	118%	100%	100%	118%
Heavy Vehicles (%)	0%	5%	13%	0%	4%	0%	0%	0%	0%	0%	8%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	449	0	0	643	0	0	0	0	0	824	0
Turn Type				D.P+P						Perm		
Protected Phases		3		2	2 3						1	
Permitted Phases				3						1		
Detector Phases		3		2	2 3					1	1	
Minimum Initial (s)		4.0		4.0						4.0	4.0	
Minimum Split (s)		21.0		8.0						9.0	9.0	
Total Split (s)	0.0	34.0	0.0	8.0	42.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0
Total Split (%)	0%	49%	0%	11%	60%	0%	0%	0%	0%	40%	40%	0%
Yellow Time (s)		3.0		2.0						3.0	3.0	
All-Red Time (s)		2.0		1.0						2.0	2.0	
Lead/Lag				Lag						Lead	Lead	
Lead-Lag Optimize?				Yes						Yes	Yes	
Recall Mode		Min		None						Min	Min	
Act Effct Green (s)		15.5			20.8						15.3	
Actuated g/C Ratio		0.34			0.46						0.34	
v/c Ratio		0.43			0.50						0.53	
Uniform Delay, d1		8.9			6.5						8.7	
Delay		9.5			7.8						9.4	
LOS		A			A						A	
Approach Delay		9.5			7.8						9.4	
Approach LOS		A			A						A	

Intersection Summary

Area Type: CBD

Cycle Length: 70

Actuated Cycle Length: 45.6

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 8.9 Intersection LOS: A

Intersection Capacity Utilization 63.0% ICU Level of Service B

Splits and Phases: 26: Court Street & Pearl Street

ø1	ø2	ø3
28 s	8 s	34 s

Section 5-11
NYSDOT Accident Rates

TABLE 5-1

AVERAGE INTERSECTION ACCIDENT RATES FOR STATE HIGHWAYS BY INTERSECTION TYPE
(BASED ON ACCIDENT DATA SEPTEMBER 97 TO AUGUST 99)

INTERSECTION TYPE RURAL FUNCTIONAL CLASS	ALL TYPES ACC/MEV	WET ROAD ACC/MEV	LEFT TURN ACC/MEV	REAR END ACC/MEV	OVER-TAKING ACC/MEV	RIGHT ANGLE ACC/MEV	RIGHT TURN ACC/MEV	HEAD ON ACC/MEV	SIDE-SWIPE ACC/MEV
3 LEGGED INTERSECTIONS									
SIGNAL ALL LANES	.44	.05	.04	.09	.01	.06	.01	.00	.00
SIGN ALL LANES	.18	.02	.02	.03	.01	.02	.00	.00	.00
NO CONTROL ALL LANES	.12	.02	.01	.02	.00	.01	.00	.00	.00
4 LEGGED INTERSECTIONS									
SIGNAL ALL LANES	.75	.10	.10	.12	.02	.16	.01	.00	.01
SIGN ALL LANES	.42	.05	.03	.05	.01	.12	.01	.00	.00
NO CONTROL ALL LANES	.17	.02	.01	.01	.01	.03	.00	.00	.00
ON RAMP									
MERGE W/ 1 LANE	.29	.04	--	--	--	--	--	--	--
MERGE W/ 2&> LANES	.07	.01	--	--	--	--	--	--	--
OFF RAMP									
MERGE W/ 1 LANE	.49	.19	--	--	--	--	--	--	--
MERGE W/ 2&> LANES	.14	.01	--	--	--	--	--	--	--

++ Non-Reportable accidents are included in the "All Types" category but, excluded from all other categories.

E

Visuals

E

Visuals

APPENDIX E
URBAN DESIGN CHARACTERISTICS AND IMPACTS AND MITIGATION

As part of the EIS process for a new Convention Center in Buffalo, New York, the project team reviewed three sites for possible expansion or new construction. These sites are located roughly on Mohawk and Washington Streets (named the Mohawk site), Perry and Michigan Street (named the Waterfront site) and the expansion of the existing facility eastward to Main Street (the Existing Convention Center site). (Figure E-1)

MOHAWK SITE

Setting

The Mohawk site is located to the east of the existing Convention Center. The site itself contains buildings of some merit, while the surrounding district borders on the fringe of the urban core, where the urban fabric is beginning to fray. (Figure E-2) Specifically, the site is located:

- One block east of Main Street, bounded by Huron Street to the north, Oak Street to the east, Broadway to the south and Washington Street to the west. (Refer to Map)
- One block east of the Hyatt Hotel, two blocks south of the Journey's end hotel, several blocks from the Hampton Inn and Mansion on Delaware, and within 1 mile of the Adam's Mark, Holiday Inn and Day's Inn Hotels.
- One block from the Theatre District Historic District to the north.
- Adjacent to the National Landmark Buffalo Savings Bank and Niagara Mohawk buildings.
- Adjacent to the Buffalo and Erie County Public Library and Lafayette Square, providing unique urban parks, regularly programmed with entertainment and activities.

- Within one block of primary financial centers occupied by Key, Fleet and M&T Banks.
- One block east of the LRRT corridor, serving points north and south on Main Street, including 2 "Park & Ride" lots, the Medical Corridor, and the University at Buffalo South Campus.
- One block east of the LRRT Pedestrian Mall, one of the largest traffic-free pedestrian malls in the nation.
- One block north of Main Place Mall, providing concentrated shopping opportunities, in addition to a small retail district immediately to the east on Main Street.
- Two blocks from the Chippewa Street entertainment district and Theatre District providing vast and varied entertainment and dining opportunities for a variety of conventioneers.
- Adjacent to a struggling small retail core, with grossly underutilized building stock. This retail core, however is a prime intact example of mid-19th century commercial structures with a cohesive scale, rhythm and streetscape, exclusive of their condition.

The proposed Mohawk site proper is an urban landscape pockmarked by prior demolition and parking lots. The buildings are in vastly varying states of vacancy and repair. The district was at one time a center of manufacturing and sales, with several businesses devoted to the electrical market. Approx. 30 buildings including (6) 1-story, (7) 2-story, (6) 3-story, (1) 4-story, (2) 5-story, (2) 6-story, (1) 10-story structures and a contemporary concrete parking ramp currently occupy the site. If site boundary extends across Washington to Main Street, an additional 17 structures will be affected.

Urban Design Considerations

Since many of the buildings originally constructed in the project area have since been demolished, with only a few of the demolished structures being replaced by contemporary construction. The existing structures do not present a dense or unbroken silhouette or massing to the site. The remaining structures on the northwest portion of the

site do not relate in density or scale to historical urban patterns. The buildings that remain do represent varying phases in downtown development, but do not create a complete homogeneous district. Building types range from a brick former livery and concrete manufacturing facilities, to cast concrete parking structures and concrete block auto repair garages. Offices for Catholic Charities and their offshoot Delta Development are located at the corner of Washington and Huron. The University at Buffalo's Employment Opportunity Center occupies a 6-story structure at the corner of Washington and Mohawk. The Mohawk site also contains 3 bar/restaurants.

The site is bisected by E. Mohawk Street and Hersee Alley running east and west, and Ellicott Street and Blossom Alley running north and south. The site is served by the Elm/Oak Corridor, easily connecting both Rt. 33 and I-290 to the parcel. Properties to the west, fronting Washington Street, are primarily vacant and the properties fronting Main and Genesee are 50% vacant. Those occupied are first floor only, with the exception of the Urban League (5-7 Genesee Street), a three-story social service building. Properties to the east take on a more suburban character. These low-rise office buildings are centered on their sites, with grass surroundings. These properties work to further diminish any cohesive urban district. Selection of this site will require finding a reuse solution for the existing facility.

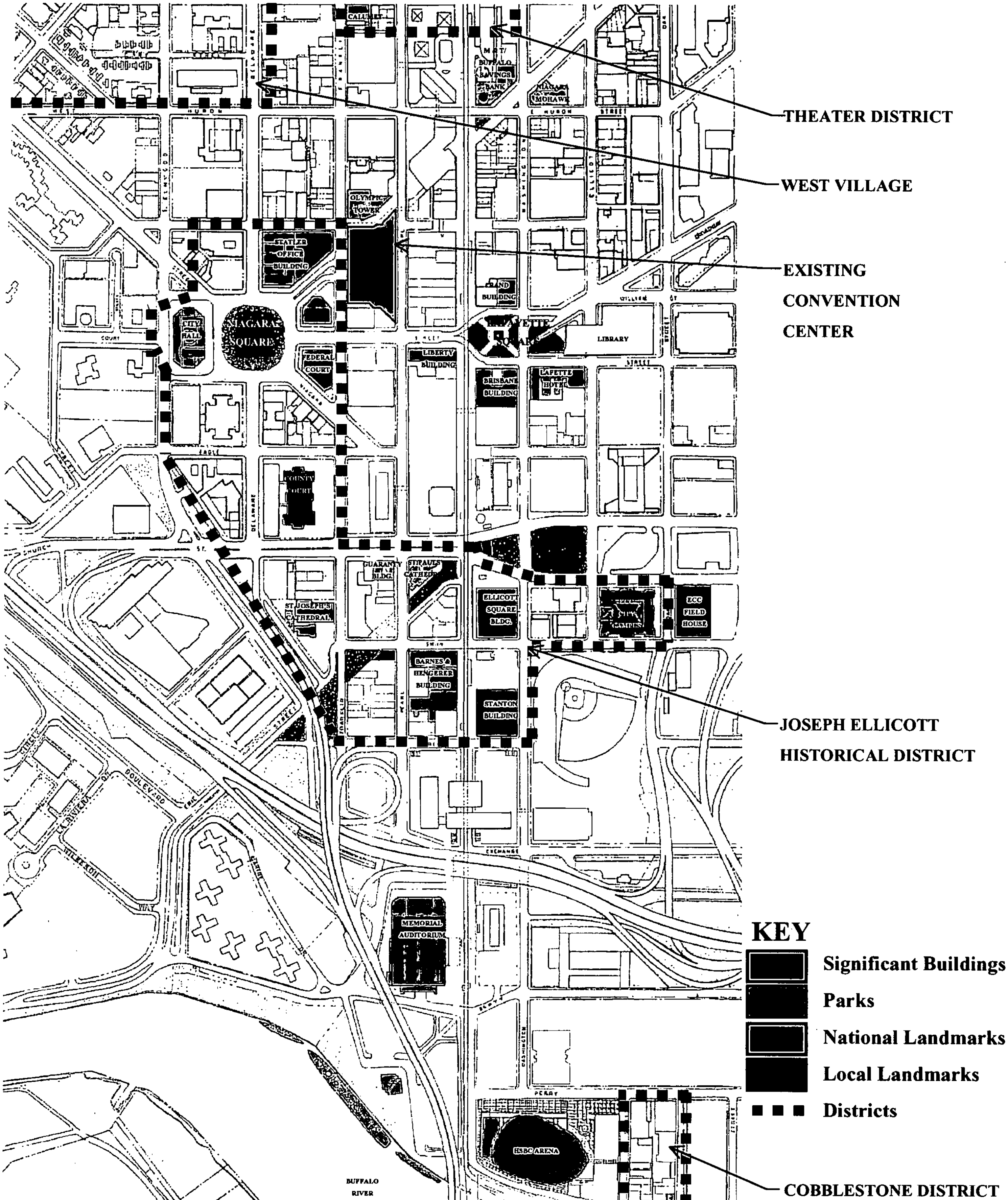


Figure E-1

Buffalo Convention Center

MOHAWK SITE

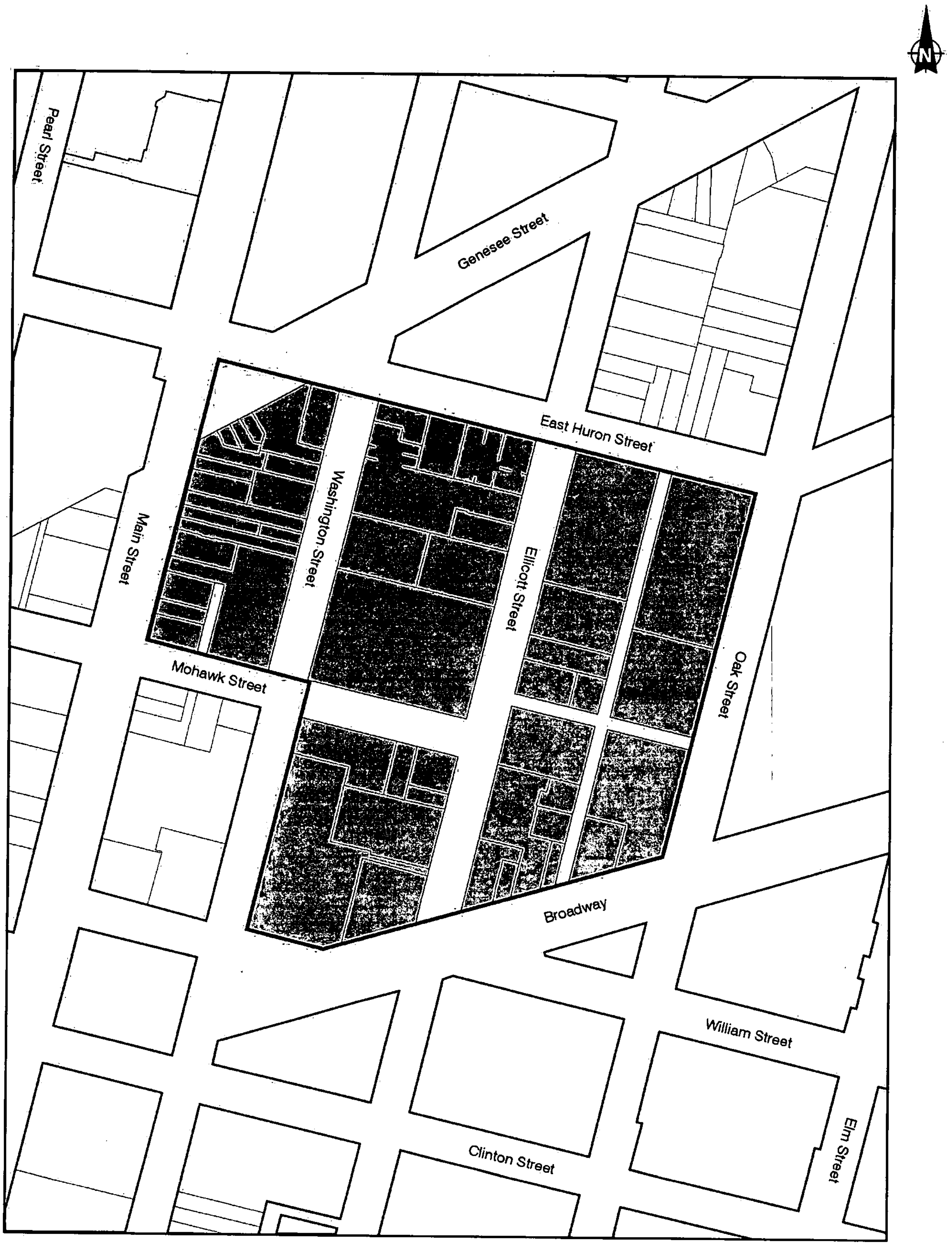


Figure E-2

Buffalo Convention Center

WATERFRONT SITE

Setting

The waterfront site is located at the foot of Main Street near activity, cultural and employment centers. (Figure E-3) Specifically, the site is located:

- Adjacent to HSBC Arena and its attached parking structure.
- Adjacent to the Cobblestone local historic district, with ties to early Buffalo waterfront business history and vernacular construction.
- One block from the proposed Adelphia office development, Buffalo River and Inner Harbor construction. This district includes the U.S.S. Little Rock and U.S.S. The Sullivans as well as the submarine U.S.S. Croaker.
- Within one block of primary financial centers occupied by HSBC and M&T Banks.
- One block east of the LRRT corridor, serving points north and south on Main Street, including 2 "Park & Ride" lots, the Medical Corridor, and the University at Buffalo South Campus.
- Adjacent to Buffalo News printing and publishing headquarters as well as Donovan State Office building.
- Served by NYS Thruway-Niagara Section with on and off ramps within 2 blocks from site, as well as Michigan Street providing access to Route 33.
- Within ¼ mile from Buffalo Automotive museum, Flickinger Athletic Center, Dunn Tire Park and ECC City Campus.

The Waterfront site is currently surface parking for the HSBC Atrium building and Buffalo News staff and delivery vehicles and provides limited off-hours Arena parking. There are presently no buildings on site. Improvements are limited to site lighting, minimal landscaping and contemporary fencing.

Urban design considerations

While the site is currently paved, with no above-grade record of previous land use, adjacent blocks have been designated historic to protect early street configurations and

building types. The Cobblestone District block, bounded by Perry, Illinois, South Park and Mississippi streets, contains low-rise industrial buildings that are primarily vacant or used for storage. One bar, a blacksmith and the offices of the Preservation Coalition of Erie County remain in this district. HSBC Arena and its adjacent parking structure are contemporary constructions completed within the last 5 years. The HSBC Atrium office building is a glass curtain wall Neo-Palladian structure (c. 1990). The Buffalo News Headquarters contains a late 20th century concrete office building with a mid-century concrete block and steel printing facility behind. Properties to the east of the site, across Columbia and Michigan, are primarily brick loading docks and 3 story or less industrial buildings and are primarily vacant or used for limited storage purposes. Selection of this site will require finding a reuse solution for the existing facility.

WATERFRONT SITE

Figure E-3

EXISTING CONVENTION CENTER SITE

Setting

The existing Convention Center facility is strategically located in Downtown Buffalo, near several activity and architectural centers. (Figure E-4) Specifically, the site is located:

- Adjacent to and including the existing site, with Franklin Street to the west, the former Genesee Street to the north, Main Street to the east and the rear property line of buildings facing Court Street to the South. (Refer to map)
- Centrally between the Joseph Ellicott Historic District to the south and the Theatre District Historic District to the northeast.
- Immediately south of the National Landmark YMCA Building.
- Immediately west of the Hyatt hotel, within 3 blocks of the Hampton Inn and Journey's End Hotels and within approx. 1 mile of the Adam's Mark, Mansion on Delaware, Holiday Inn and Best Western Hotels.
- Within an active office area and immediately north of a government district which includes City, County, State and Federal office and Court buildings.
- Within one block of primary financial centers occupied by Key, Fleet and M&T Banks.
- One block west of the LRRT corridor, serving points north and south on Main Street, including 2 "Park & Ride" lots, the Medical Corridor, and the University at Buffalo South Campus.
- One block west of the LRRT Pedestrian Mall, one of the largest traffic-free pedestrian malls in the nation.
- One block north of Main Place Mall, providing concentrated shopping opportunities, in addition to a small retail district immediately to the east on Main Street.
- Two blocks from the Chippewa Street entertainment district and Theatre District providing vast and varied entertainment opportunities for a variety of conventioneers.

The existing convention Center site is currently serving the convention market with an exhibit floor, ballroom, meeting rooms and service functions. The structure itself is a large, concrete 2-story structure, with a primary entrance on Franklin Street, an unused entrance on Court Street and service access from Pearl Street. The northerly edge of the property is located on the former Genesee Street, now closed to vehicular traffic but available as a narrowed pedestrian cut-through. This street was originally part of the radial street plan of the City. An opportunity exists to extend the existing facility over to Main Street across Pearl Street, though the extents of this action must be determined through this study. Structures surrounding the site are of various sizes and uses, proving a broad-use, variegated urban fabric characteristic. The urban character of the site surroundings is dense, with interspersed freestanding and "in-building" parking structures. There is little surface parking or underdeveloped land in this district.

Urban Design Considerations

The existing Convention Center facility is located in the heart of Downtown Buffalo on decidedly urban streets. Access from the highway or expressway is through the city streets. The construction of the existing facility forced the demolition of all previous structures on the site, leaving the 1970's concrete brutalist facades in stark contrast to the surrounding early 20th century commercial buildings, the WPA-era civic buildings and the mid-century office towers in its proximity. Construction of the facility erased the continuity of the existing radial street plan in that portion of the city.

Court Street, running east and west along the southern boundary of the site, remains a key component of the radial plan and vista downtown. At the base of Court Street, a slight hill, sits the Art Deco City Hall and Niagara Square. The towering edifice uses strong Machine-age imagery and Native American motifs. McKinley Monument in Niagara Square, with its lion fountains and spire, aligns the street and the steps of City Hall. At the top of the hill Lafayette Square and the impressive Soldiers and Sailors Monument

anchor the street. Along its length are State and Federal office buildings with a new Federal Court House in the planning stages.

The bulk of the property surrounding the existing Convention Center facility is substantially occupied and in good condition. The Art Deco former Key Bank at Pearl and Court streets has striking steel detail, while 45 Court Street boasts maritime detailing. The State and Federal Court buildings are markedly WPA in style with monumental scale, stone detailing and the streamlined appearance of the emerging machine age. The exceptions lie primarily to the east along Pearl and Main Streets. The former Courtyard Mall and Baker's Shoes buildings are through-block properties that are 100% vacant. Both of the structures have been substantially modified in the 1970's and are a further detriment to the otherwise cohesive urban district. Reuse of this site would eliminate the need to find a new use for the existing facility.

EXISTING CONVENTION CENTER SITE

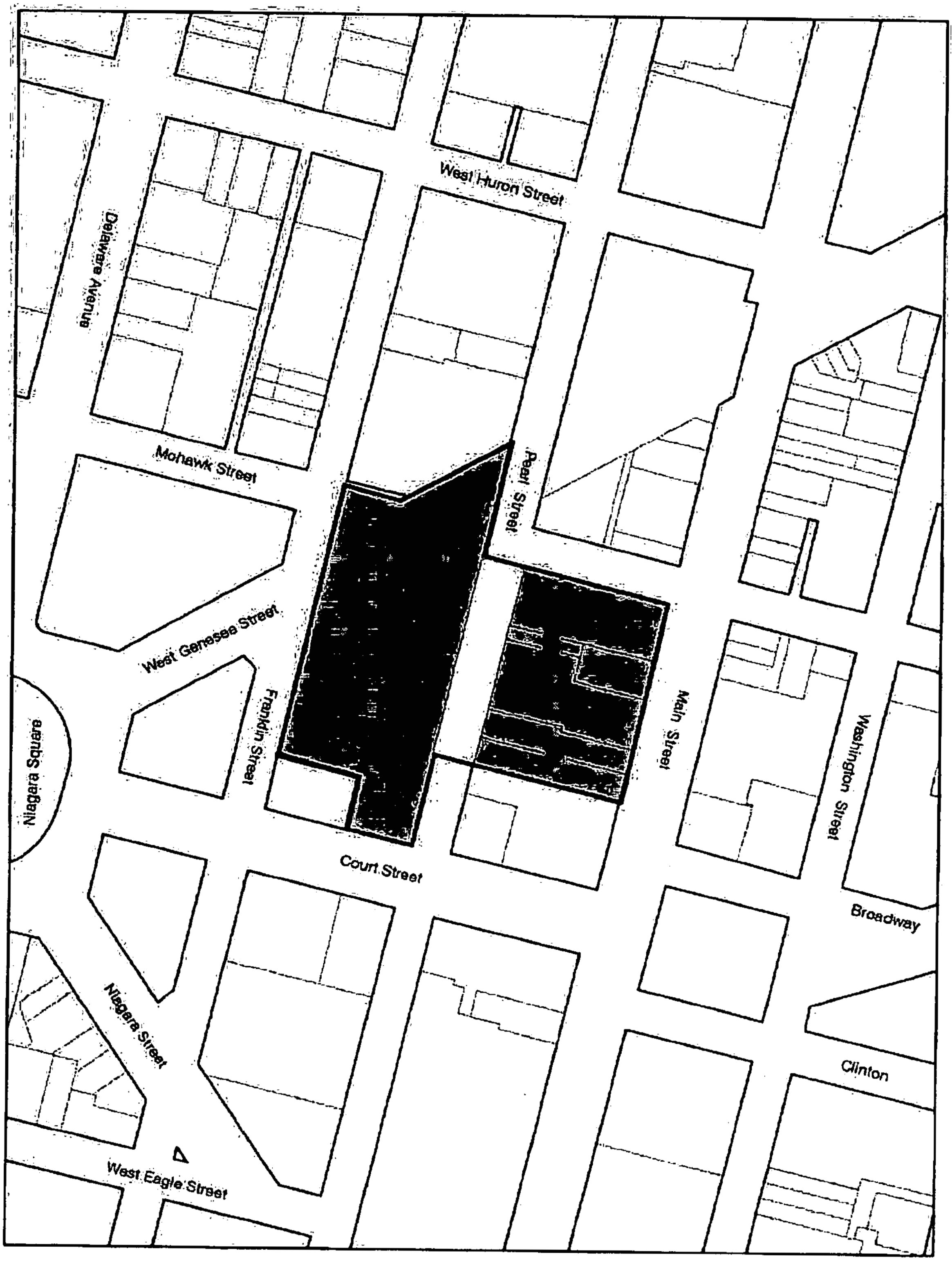


Figure E-4

ARCHITECTURAL, CULTURAL AND COMMUNITY VALUES

Evaluation of a site in terms of historic preservation must consider architectural, cultural, and community issues. Architectural integrity must be considered. This involves the quality and intactness of the original design of the building and can be subdivided into design, setting, location, materials, and scale. Design involves an assessment of the quality of a particular building and to what extent the design has remained intact. Setting considers the original context in which the structure was built and to what extent that context has changed. For example, the setting of a two-story commercial building originally designed in the context of other low-rise commercial buildings would be drastically changed if high-rise office buildings now surrounded it. Location is the consideration of whether or not a structure exists on its original site or if the building has been moved in full or in part. A consideration of materials involves an evaluation of both the intactness of original materials and the quality of design and application of the original materials. Scale is a consideration of the sensitivity of the design and formal articulation of the various parts of the building relative to pedestrian and human scale. Scale may also be extended to address the relationship of the proposed structure to other adjacent buildings.

Cultural significance is obtained through association with important persons or events. Cultural significance also pertains to sites that possess archaeological value. Structures can obtain cultural significance apart from their quality of design. However, a structure can be said to have cultural significance if it is either the work of an established master or possesses particularly high artistic value.

A structure could be classified as having community value if it is a particularly good representative of a building type that was important in the historic development of an area. A site or building may also possess community value if it is generally perceived as having good development potential.

URBAN DESIGN CHARACTERISTICS

Convention centers typically become significant landmarks and economic engines for cities in which they are constructed. Thus, both the initial public investment of a new convention center facility and any subsequent privately-funded headquarter hotel construction will have significant effect in regard to urban design considerations. The sheer square foot and volume requirements of such a facility indicate that the project would become a significant landmark in downtown Buffalo.

MOHAWK SITE

Setting Proximities and Site Characteristics

The Mohawk Street site provides an opportunity to expand the exhibit space of the convention facility on one plane, as opposed to creating a multi-level exhibit space on the existing site. The proposed site is more level than the existing site and would lend itself to an unbroken horizontal footprint. The proposed site is one block from the LRRT on Main Street, with an opportunity for a Main Street "plaza" if desired. The large volume of the new facility would extend the density of the urban core to the east, replacing the patchwork nature of the current land use.

The property is well served by the Elm/Oak arterial, which would simplify access to the site. Patrons would not have to navigate complex city street patterns to reach the site. Conversely, patrons would not gain incidental exposure to complementing downtown uses that might increase event-associated spending.

The Mohawk site is diagonally contiguous to Lafayette Square. Connection to this open space is equally beneficial in addition to or instead of a Main Street connection. Placement of a large mass on this corner would fill the visual void left when surface

parking was created on that corner. Either a primary convention entrance or hotel entrance could provide this mass.

Scale and Design

Individual properties to the east of Main Street are generally smaller in scale than their west-of-Main neighbors. These properties are typically 30-40 feet in width and primarily under 4 stories in height. To the east of the proposed site density is further diminished. Buildings take on a more suburban character, being lower and more widely spaced. Construction of a massive volume across the 5 block site would be out of character for the densities in the immediate surroundings. Connecting the property directly to Main Street, one block further west would further exacerbate the situation, unless the existing building facades were incorporated directly into the new façade line.

Relationship to Existing Architecture

The proposed building type is different from the types currently on site or immediately surrounding it. The building mass will tower over structures to the west and east. Properties to the north include the national landmark Niagara Mohawk and former Buffalo Savings Bank (now M&T Bank) buildings. Facades that address these properties must be carefully detailed and articulated to complement and not compete with them.

Properties to the west along Main and Genesee Streets, if chosen to remain, could be incorporated into the façade to blend the new construction with its context and soften the transition from the street line. This design approach could reemphasize the trend of incorporating existing buildings into new construction immediately surrounding the site; i.e. M&T Center/Buffalo Savings Bank, Genesee Building/Hyatt Hotel, Theater Place, Market Arcade/Salter Building.

Streetscape

The streetscape on the site and immediately surrounding the site is varied. While most existing buildings fill lots to the sidewalk, surface parking throughout the project area diminishes any continuity. The program requirements for the facility require almost the entire site to be utilized for buildout. Vacant space remaining on site could be utilized for private sector hotel development.

There is a general breakdown in the quality, historic importance and occupancy of buildings along Main Street near Mohawk. Open space left from the demolition of a former theater entrance lobby and non-contributing 1950's construction (JP Fashions and the vacant Burger King) create a gap toothed streetscape, in contrast to the stronger contextual fabric along Main Street further to the North. It may be suitable to provide open public space and a primary entrance at this location, strengthening this point in the block as a thoroughfare.

Views and Vistas

Siting of the building on the Mohawk site presents a particular challenge. The property will be required to span Ellicott Street (and possibly Washington Street if the building is connected directly to Main Street), to maintain critical north/south thoroughfares in downtown. Additionally, the building will further obliterate Mohawk Street, which was eliminated to the west between Main Street and Franklin Street by the earlier Convention Center construction. Blossom Street and Hersee Alley will also be erased. Both these streets are remaining examples of earlier property configurations throughout downtown. The open nature of the landscape to the east will allow a clear view of the Center mass and create the impression of a giant building located within this section of the City. Any project proposal to put the primary entrance on the westerly portion of the site means that all vehicles approaching the site from the east via Elm/Oak will approach the rear of the property with no flanking building screening available. This condition is considered a

negative feature on the existing facility and may act as a further obstacle to rejoining Buffalo's near east side with the downtown core.

The street span over Ellicott is expected to be approximately 850-900'. This is directly in line with the Public Library street span immediately to the south. (This span is approximately 125' in length and not generally accepted as a positive design feature of the current library.) This would create a roughly ¼ mile tunnel along Ellicott Street, a feature which is less than favorable. If the facility makes a direct connection to Main Street, this condition would also be replicated across Washington Street.

Broader urban design strategies for the entire district may present a unique opportunity for new public space. However, if the Center is moved to the Mohawk site, and the existing facility or site is converted to a new use, primary entrances at Mohawk would create an opportunity for an axial link open space on the blocks of Mohawk immediately east and west of Main. This would extend the Pedestrian Mall perpendicularly toward each building.

A large volume extending to the corner of Washington and Broadway would close the gap in the "exterior walls" of Lafayette Square left by the creation of surface parking there.

In conclusion, placement of the large mass on the Mohawk site will restrict all views north and south along Ellicott and possibly Washington Street. It will also eliminate short street views down Mohawk.

<u>Activity Centers</u>

The Mohawk site offers opportunities for three primary entrances: at Huron & Washington, at Mohawk Street, and /or at Washington & Broadway. Location of the primary entrance will have significant impact on the surrounding businesses. Each point

patrons in a different direction from the site and encourage use of different LRRT train stops. It would appear that a primary entrance at Mohawk would most greatly benefit business on Main Street in the 500 block, while a Lafayette Square entrance might favor Main and Court and Main Place Mall. Care should be taken to make sure one entrance location is not negatively impacting the business climate around another location.

Service activities will be concentrated at the east side of the site where available off-site land for queuing and large truck traffic are more appropriate. This area at Oak is already a south bound speedway. This use will not further exacerbate this condition and may even serve to calm traffic at times due to the standing trucks.

Pedestrian and Vehicular Approach Corridors (links, edges and barriers)

Issues regarding view and vista constraints caused by the streets spans of the project must be revisited here. The 900' long above-ground tunnel created is an extremely negative environment for pedestrian and motorist alike. This condition will create a North/South barrier at the site. The existing Elm/Oak arterial has created a boundary condition to the east that has long been recognized as severing the near-east side from downtown. Creation of a 50-60' service wall to the east will further compound the barrier affect created at this location. There is little reason to believe that open parking one block north of the site or low-rise office uses to the east will be developed to a higher use in the near future. This will further strengthen the feeling of void to the north. Effort should be made to integrate the building as a patch between the two sides, rather than a higher wall.

To the west, however, the project provides an opportunity to link with Main Street and Lafayette Square, bolstering the significant public investments in these areas.

Opportunities

If properly addressed, the facility at this site could begin to reconnect the city east and westward. It provides an opportunity to greet the vehicular guest on Elm-Oak and direct them toward the City center. It can close openings in the streetscape at Lafayette Square, strengthen previous investments and bolster weak real estate/commercial markets.

WATERFRONT SITE

Setting Proximities and Site Characteristics

The third site alternative at the Waterfront is located immediately north of HSBC Arena and the Cobblestone Historic District. The site is bounded by Scott Street to the north, Mississippi Street to the east, Perry to the south and the HSBC atrium to the west, and currently serves as parking for the Atrium and Buffalo News. There are no structures on site. Building densities vary around the site with a massive area and parking structure, medium rise office uses and a stark industrial printing facility. This is contrasted by vacant land and small scale vernacular industrial buildings of 1 and 2 stories to the east and south.

The site is 1-½ blocks off Main and the LRRT line. Access is along Scott or Perry Streets around the Atrium building.

The site is also surrounded on two sides with elevated highway. These highways tend to isolate the district as a whole from the rest of downtown. This feeling is compounded by the M&T Tower that spans Main Street and blocks both views and implied access to the region. Wind conditions caused by the M&T Tower make pedestrian access down Main to the site treacherous, especially in winter.

The site is near the proposed Inner Harbor and waterfront which provides some destination entertainment opportunities, however, the project is not yet fully underway and its completion date is not yet known or assumed.

Scale and Design

The recently constructed HSBC Atrium, Arena and parking are all massive structures. Any new large scale construction would be compatible with the emerging character of the district. The challenge is to create the large building and provide detailing that is also compatible with the diminutive industrial buildings to the south. Sincere materials, comfortable rhythms and sympathetic detailing should be considered to blend between the two disparate building types surrounding the site.

Relationship to Existing Architecture

Styles, construction materials and scales around the site differ greatly. The impact of this Center is expected to be similar to the impact of the Arena on the Cobblestone District. The amount of open space created by surrounding surface parking justifies the need for the massive structure to infill the void.

Properties further to the east are vacant or underutilized low-rise industrial, many transportation terminals. These derelict structures are a detriment to the perception of safety or "destination" in the area. The historic buildings within the local Cobblestone Historic District may present development opportunities that tie the Convention Center and the area as a whole to the emerging Waterfront district.

Streetscape

Most of the surrounding blocks are vacant – open parking, Thruway underpasses or undeveloped land. There is little streetscape to speak of, creating an uncomfortable

atmosphere. The nearby DL&W terminal (train barn for the NFTA) is a large, open 2 story brick structure which creates a rhythm along its length. Devices such as these may be necessary to create a street where none presently exists, as will the redevelopment of the Cobblestone District buildings. These buildings vary from each other in scale but present an historic brick building landscape.

Views and Vistas

The amount of open land immediately surrounding the site will make the facility easily visible from all sides in the immediate area. The elevated highways surrounding most of the site provide an additional unique "bird's eye" perspective on this site, similar to the view of the Arena. These elevated roadways, and the M&T Tower, block the view of the site from ground level from the north and west. There is little remaining land before the Lake/River to the south that would provide an opportunity for a view. Any possible view of the site from the water is obstructed by the Arena and Atrium. Industrial buildings in that direction obstruct view of the site from the First Ward community to the southeast.

The site is isolated from view in most directions though the immediate surroundings are open.

Activity Centers

The Arena, Atrium and News provide the significant activity centers for the site. The remaining perimeter is hostile and uninviting. Focusing the public activity toward these uses will further emphasize the negative image of the remainder of the perimeter. Reorienting the public access to another area will force patrons into an undeveloped part of the site. This may encourage spin off development, but the timeframe for such development may hinder marketability of the venue.

Pedestrian and Vehicular Approach (links, edges, barriers)

The Site is primarily accessed from Michigan Street or Pearl via different exits from the I-290. All approaches force patrons trough the underpasses of the elevated highways surrounding the site. This emphasizes the isolated nature of the site. Access from Main Street via the LRRT train line also must come through the tunnel created by M&T Tower. This approach also enhances the feeling of isolation. Strong links to the train would be necessary as the users would have to find their way to the facility located behind the Atrium building.

It would not be anticipated that this location would immediately or easily positively impact business/retail in the remainder of downtown.

Opportunities

Location at the waterfront site allows development to build on the momentum created by the Atrium, Arena and waterfront construction. The Center would bolster an emerging entertainment district and begin to create a destination. This destination would be isolated from the remainder of the City, however. This would create the need for significant investment in the district to provide amenities necessary to support the patron base of a marketable convention center. Ample land exists for this spin-off development.

Development would also encourage quicker redevelopment of the nearby vacant Memorial Auditorium, empty since the completion of HSBC Arena. Uses proposed for the Auditorium include a multi-modal transportation center, which would support the tourism based Convention Center use.

EXISTING CONVENTION CENTER

Setting Proximities and Site Characteristics

The reuse of the convention center facility affords an opportunity to correct what have been considered by many to be poor planning and design moves made in the construction of the facility. Required expansion also provides an opportunity to connect this significant public structure with Main Street, the LRRT and Pedestrian Mall, which is considered by some to be a project objective. The connection resulting from the expansion would promote greater pedestrian involvement on this amenity. Expansion of the facility to Main Street would create an approximately 400' long covered roadway over Pearl Street, a condition similar to, but in greater scale, the Library ROW over Ellicott Street. Expansion of the existing site may allow creation of limited on-site subgrade parking. This option will not provide an opportunity for improving/simplifying vehicular access to the site.

Scale & Design

The existing Convention Center is located in one of the densest areas of Downtown Buffalo. Expansion of the facility to Main Street with a three-story structure (assumed to be required because of grade differences with Franklin Street) would be appropriate given the dense urban scale immediately surrounding the site. New construction on Main Street has the opportunity to correct previous design interventions along the west face of the Main Street block. New construction at Courtyard Mall, Rite Aid and Baker's Shoes is not complementary to the existing urban setting.

While the high 2 story concrete façade along Franklin Street is severe and extremely dense, the height could be increased by another story and still keep within an appropriate scale with respect to the properties along face of the building. Significant changes should

be considered to this façade to make this face of the building more inviting whether or not this is retained as a primary entrance area.

The proposed expansion would necessitate a multi-level exhibit floor, resulting from level changes between the streets running north and south. This multi-level scenario is seen as a detriment to marketing the facility, and complicates service vehicular access to the exhibit floor.

This report later addresses the measures that could be applied to mitigate the impacts of this construction.

Relationship to Existing Architecture

The existing architecture of this convention center does not respond to the existing site context. The lack of rhythm at the first floor, fenestration at the upper level and stark loading area along Pearl create a negative pedestrian environment. Also, the lack of scaled fenestration creates the atmosphere of a larger facility than the already large scaled Convention Center. While more recent projects (Hyatt Hotel/Genesee Building, Buffalo Savings bank building/M&T Bank, and Theater Place) have incorporated existing fabric successfully, greater attention must be given in this case to correcting the negative image of the existing building through the additions proposed.

Streetscape

Again, regardless of potential entrance relocation issues, the Franklin Street façade must receive significant modification to better blend with its immediate context. A greater sense of rhythm at all levels is warranted.

The north and south façades, which will effectively bridge Pearl Street and create a new large façade, must be carefully addressed to minimize the impact of this broad platform

across the street. The underutilized entrance plaza should be reworked to avoid confusion with the new entrance imaging. The unused Court Street entrance must be reworked or removed, as it gives a sense of vacancy to this block. While the creation of a plaza can be welcomed, especially with the construction of a new Federal Court House across the street, this unused plaza is currently more of a negative than a positive. The new annex to the historic Michael J. Dillon is proposed to be built within the next three years on the block south of this entrance plaza. The plaza could appear as an open area complementing the new building's open area.

Main Street could benefit from the removal of several vacant structures along its length. Adjoining properties all extend to the street line. Creation of any entrance plaza on Main would not be appropriate. Additionally, a significant public plaza and amphitheater exists directly across Main Street in Lafayette Square.

Views & Vistas

Since it is easier for pedestrians to see distant buildings across parking lots or along street axes than through other structures, the placement of the new convention center expansion will naturally restrict some views and vistas.

Views along Pearl Street are currently broken one block past the proposed addition by a pedestrian walkway from the Rath County building and Main Place Mall. Additional construction over Pearl Street would not further diminish this view, though the long, dark tunnel created must be addressed to mitigate its impact.

The radial street and public square plan downtown creates other natural opportunities for views from nearby open spaces. These vistas become the primary focus of the downtown scene and are not negatively impacted by any convention center expansion.

Activity Centers

Current pedestrian entrance activity is focused along Franklin Street, while the truck access is from Pearl. There is no street level pedestrian access along Pearl, significantly impacting the real estate market along this street. There are currently only two active rear exits to Main Street buildings along Pearl and no independent destinations. Extension of the building to Main eliminates the concern, but creates the opportunity for three primary entrances on Main, Court and Franklin. Multiple entrances are difficult logistically and must be carefully addressed to prevent a recreation of the situation that developed on Pearl Street. Each open face must work to enhance the street and not draw activity away from fragile activity centers at other exposed faces. Additionally, while a primary entrance on Main Street is a possible project benefit, the vehicular-free nature of this street may prohibit access by required busses, shuttles and taxis.

Pedestrian and Vehicular Approach Corridors (Links, Edges & Barriers)

As previously discussed, refocusing primary entrance of the facility could have a significant impact on the surrounding streets. The height of the expanded facility would be appropriate for the surrounding buildings. View would be very limited because of the masking nature of large buildings surrounding the site: State Office Building (65 Court Street), Statler Towers (Genesee and Delaware), and Walbridge Building (45 Court Street). The visual impact of the Pearl Street span will be significant when viewed from the north or south along Pearl Street. Both motorists and pedestrians will feel the affect of this 400' "tunnel", creating a negative barrier condition. The facility will also be visible up Genesee Street from the west and along the Main Street pedestrian mall, with little change from the present conditions in those areas.

Opportunities

Renovation and expansion of the existing Convention Center presents many opportunities. Image of the existing facility is almost universally negative. It is viewed as an uninviting concrete barrier. Renovation presents the opportunity to correct this negative. Additionally, replacement of long vacant buildings on Main Street with activity and income generating uses increases opportunities for spin off development along the struggling Main Street Pedestrian Mall. In all, renovation with expansion could improve the image of downtown.

Specifically, the expansion of the existing Convention Center facility accomplishes the following objectives: Re-uses the existing facility and previously expended public resources; improves the opportunity to connect to the Hyatt Hotel; improve the project connection to Main Street; address Lafayette Square at the south-east corner of the site; avoid significant historic preservation constraints; and eliminate the need to develop alternate uses for the existing Convention Center facility.

Additional parking within the facility would help alleviate parking shortage perceptions, as well as increase the space count in that sector of downtown to meet the increased demand. Existing businesses displaced by the expansion program could be relocated to retail spaces within the east side of the block or within Main Street Convention Center footage.

PROJECT IMPACTS

CRITERIA FOR IMPACT ASSESSMENT

In conjunction with the above analysis of setting, a weighting factor was applied to the architectural, cultural and community values delineated in the following Impact Matrixes. These matrixes give particular emphasis to those values traditionally identified with urban development, particularly on the three sites identified for potential use of the Convention Center structure.

"Scale" is important because it is a concern most frequently cited by preservation groups and concerned parties. "High Artistic Value" and "Work of a Master" are also considered very important due to preservationist concerns that these sites are located near the Joseph Ellicott, Theatre and Cobblestone Historic Districts, as well as the Niagara Mohawk Building, Buffalo Savings Bank and former YMCA, all of which are significant local and national landmarks.

"Design" was considered to be of minor importance because most of the structures had undergone some changes since their original construction. "Setting" was considered to be of minor importance because the original setting of most of the structures had undergone considerable change already. "Association with Events" and "Representative" of a building type is both rated as having moderate importance. Each site played an important role in the development of the City for different reasons, however, the waterfront site and the surrounding area have been significantly altered as compared to the Mohawk site and more so the Existing site. "Development Potential" was rated as being moderately important since, although the buildings on the Mohawk and Existing expansion site represent prime redevelopment locations, the economic climate in Buffalo has not previously inspired reuse of these structures, nor would this climate necessitate building of new structures on the Waterfront or Mohawk sites. "Location" was considered the least important value. This value was placed on the matrix as a check that each building existed on its original site. "Materials" and "Scale" were considered to be of moderate importance due to the general continuity of materialize and size that make up

buildings on all three sites, with the adjacent Cobblestone district having the greatest continuity between structures. "Association with Lives" and "Archaeological Importance" were also considered of little importance, since a review of the available literature did not reveal any significance with relation to the Existing or Mohawk site, but did play a role in the Waterfront site.

The properties were rated on their value to the community. The terms "Representative" and "Development Potential" relate to the individual property's relationship to the neighborhood a whole. Is the building representative of a building type typically found in this neighborhood? A one-story drive-through fast food restaurant would not be typical of the buildings traditionally found in any urban downtown, and most specifically Buffalo's downtown. The term development potential as used here relates specifically to the ability of the property to be reused in its present configuration. It does not look solely at the economics of a reuse, but rather considers factors such as building configuration, condition, size, location, surrounding properties. This category was given a low overall importance (a factor of 1). A vacant lot under a thruway overpass was not given a high development potential as compared to a vacant multi-story building, with a sizable footprint, with an structural system adaptable to may uses, and the ability to accommodate multiple means of egress and an elevator. The history of the individual property, its owner's inability or unwillingness to sell or develop a property to its highest and best use, and the economics of such a reuse was not considered.

To further quantify the impacts of the proposed development on the structures both on and adjacent to the various sites, summary matrices were developed that weighted the relative importance of the impact criteria in relation to each other. For example Scale and Materials were given greater relative importance than location and setting. In this way one can readily identify the most severely impacted structures.

Both these matrixes have been developed for each site and are included here for review.

Massing schemes were developed for each site to determine rough bulling size, entry configuration, traffic patterns and linkages. It should be cautioned that these schemes are diagrammatic only and are not intended to limit the design opportunities or offer any concrete design solutions. They are for the purpose of qualifying the program and assessing impact.

MOHAWK SITE

Development on the Mohawk site could occur in many ways. For purposes of this discussion, we will look at two alternatives for development of the Mohawk Site. The first scheme could utilize a vertical orientation with meeting rooms and parking on the first level, exhibition space on the second level and the ballroom and support kitchen on the third level. This would create a building approximately 100' high and a footprint that would span north and south from Huron to Mohawk Streets, and east to west from Washington to Oak Streets. If the development is located primarily on the north and west portion of the site, with a link to the Hyatt Hotel across Washington and Main Streets, vacant space for future development or expansion could be located to the south. For the purposes of this discussion, it is assumed that a primary entrance of the three-level Convention Center would be located on or near the south-east corner of Washington and Huron Streets. Patron auto/bus drop off would be located along Washington Street. A loading dock would be located along Oak Street. The building would span Ellicott Street. No determination is made on the entrance or exit points for first level parking.

Impact on site structures:

This scheme would result in the immediate demolition of 15 on-site structures, as well as the incorporation of the existing City of Buffalo Fire Alarm Headquarters into the structure. If the site is considered to cross Washington Street to Main Street an additional two to four buildings will be partially or completely demolished to create a link to the

Hyatt Hotel. As a result, the impact of the convention center development must therefore focus on the significant values these buildings possess. (Figure E-5 & E-6)

According to the Summary Impact Matrix for the Mohawk Site (Figure E-7), 537 Main Street (Grever's Florist) is considered to be important because it is representative of a building type that played a significant role in Buffalo's development and its scale on the street. This building would be impacted if any link is made across Main Street to connect the proposed Convention Center to the existing Hyatt Hotel. The State Historic Preservation Office (SHPO) has identified this as one of the certified eligible properties within the site boundary. Additionally, 510 Washington Street has been deemed significant on the Summary Impact Matrix because of its materials, with the original concrete and brick façade virtually unchanged since its construction. This building would be impacted because is it across the street from any proposed development on the Convention Center site and may be impacted by a link across to Main Street.

On the site proper, 25 E. Huron Street (The Burns Building), 499-501 Washington Street (Holing Press) and 321 Ellicott Street have been given significance because the materials used are significant and the building type is indicative of the development of Buffalo. Both 25 El Huron and 499-501 Washington Streets have been certified eligible by the SHPO. 6 Blossom Alley is significant because of the use of materials. Additionally, this is the lone remaining stable building in Downtown Buffalo. As such, it has been certified eligible by the SHPO. Scale of the structure was considered moderately important for the following structures: 515, 517, 519 and 521-525 Washington Streets; 285-301, 321, and 329-331 Ellicott; and 6 Blossom.

Finally, the location of the City of Buffalo Fire Alarm Headquarters is directly in the middle of the site. Relocation of the facility has not been deemed an option and it must be incorporated into the lowest level of convention center construction.

Impact on Adjacent Structures:

An assessment of the impact of the proposed convention center development on the structures adjacent to the Mohawk Site must focus on the significant values that any or all of these buildings possess. Delineating these significant values will achieve a better understanding of the possible adverse impacts the convention center may have on these adjacent structures. Figure E-6 highlights the significant architectural, cultural and community values of these adjacent buildings. Since this matrix was weighted according to the concerns of various community and preservation groups, it also represents the concerns of these groups regarding the relationship the convention center development will have on the buildings adjacent to the site. The purpose of this section was to delineate historic preservation and urban planning concerns relative to significant values; possible mitigation measures to alleviate these impacts will be dealt with in a later section of the report.

A major concern to all interested parties is the enormous scale of the proposed convention center relative to most of the adjacent buildings. The structure proposed in a vertically oriented, three-level scheme would be comparable in height to 499 Washington Street (Holling Press) and 5 blocks in size. Virtually every building in the adjacent site area was considered important because of its scale and the proposed convention center would overwhelm the buildings adjacent to it. Additionally, 12 buildings are considered important because of materials and 10 are considered significant because they represent buildings indicative of Buffalo's development history. 391 Washington Street is not only considered important for the reasons specified above, but because of its association with Mary Bethune, it's architect and the first woman AIA member. 36 Broadway is also considered importance because of its association with noted artist Charles Burchfield, as the subject of one of his paintings.

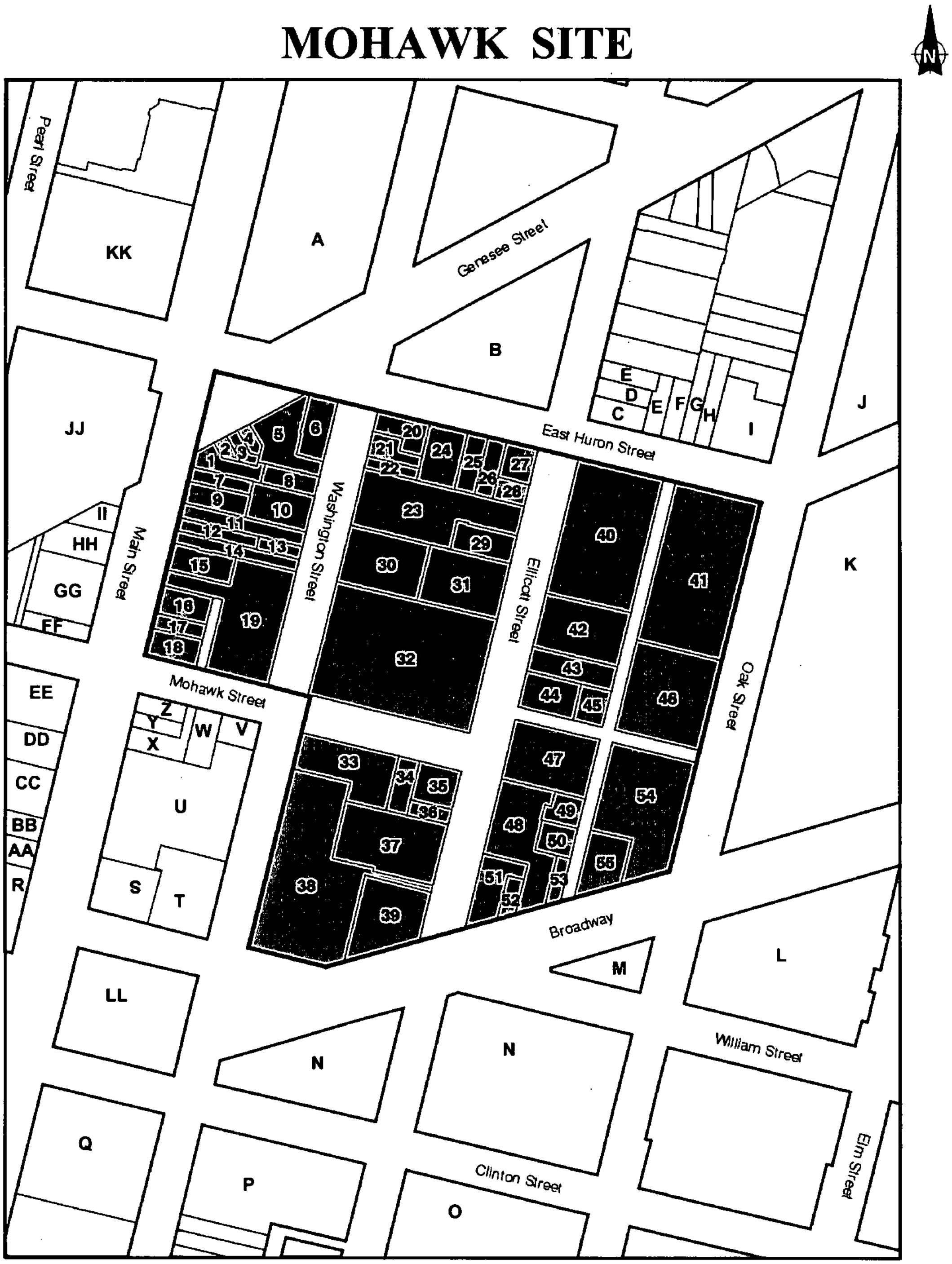
It is difficult to quantify perception of the impact of the convention center on the structures, however at this point it may be sufficient to acknowledge the concerns raised.

Finally, two structures adjacent to the site, 595 Main and 535 Washington Street, are national landmarks because of their prominence architecturally and historically. While acknowledging their importance,, the construction of the convention center will not diminish the importance of these structures. Additional structures are quantified as important because of their materials use, representative nature to downtown development and association with lives in the City.

Impacts on the Theatre District and Joseph Ellicott Historic Districts:

It is not anticipated that the construction of the convention center would have any negative impact on these districts as a whole. The properties in these districts are well occupied, so demolition to accommodate parking is not a concern. The districts are far enough away to not suffer from the immediate affects of the scale of the proposed construction.

MOHAWK SITE



Parcels/Ownership/Address

1 Main 537 LLC
537 Main Street
2 Mitchell, John C., Ladas, George
5 Genesee Street
3 Mitchell, John C., Ladas, George
7 Genesee Street
4 Jankolovic, Marie
9 Genesee Street
5 Buffalo Urban League, Inc.
11 Genesee Street
6 Giangreco, Joseph
5 Huron Street
7 Giaccotto, John
535 Main Street
8 Smilanich, George III
510 Washington Street
11 Lu Xiao Bao & Lu Meeling
525 Main Street
12 Kim, Veronica
523 Main Street
13 Damiani, Lena J., Martino, Roseann
500 Washington Street
14 521 Main St. Inc.
521 Main Street
15 Giangreco, Samuel & One
515 Main Street
16 Park, Young HWI & Young Soon; Park, Andrew J.
505 Main Street
17 Malik, Naseem M.
501 Main Street
18 CJM Properties L P
495 Main Street
19 511 Main St. Corp & One
513 Main Street
21 Catholic Charities of Buffalo N.Y.
519 Washington Street
22 Smith, Joseph & Roseann
517 Washington Street
23 Buffalo Urban League Inc.
515 Washington Street
24 Simon, Bert
23 East Huron Street
25 Simon, Bert
31 East Huron Street
26 Simon, Bert
33 East Huron Street
27 Simon, Bert
35 East Huron Street
28 Simon, Bert & W
348 Ellicott Street
29 Sonnenberger, Ray L.
338 Ellicott Street
30 Leo H Ward, Inc.
499 Washington Street
31 City of Buffalo Alarm Office, Bflo Fire Dept.
332 Ellicott Street
32 City of Buffalo, Division of Real Estate
477 Washington Street
33 FNUB Corp
465 Washington Street
34 Perrone, Peter V.
47 East Mohawk Street
35 Orlin Enterprises Inc.
51 East Mohawk Street
36 Erie County Industrial Dev Agency
298 Ellicott Street
37 Erie County Industrial Dev Agency
290 Ellicott Street
38 Canada Life Insurance Co of America
451 Washington Street
39 Herrick, Joy Field
20 Broadway
40 Albarella, Thomas & Dorothy.
337 Ellicott Street
41 Niagara Mohawk Power Corp
75 East Huron Street
42 Ferguson Elec Const Co Inc.
329 Ellicott Street
43 Ferguson Elec Const Co Inc.
321 Ellicott Street
44 Ferguson Elec Const Co Inc.
317 Ellicott Street
45 Ferguson Elec Const Co Inc.
6 Blossom Street
46 Russo, Joseph P Jr.
198 Oak Street
47 Ferguson Elec Const Co Inc.
303 Ellicott Street
48 Emulso Corp
301 Ellicott Street
49 The William G Schmid Family Living Trust
4 Blossom Street
50 The William G Schmid Family Living Trust
2 Blossom Street
51 Dosh Enterprises Inc
36 Broadway
52 The William G Schmid Family Living Trust
42 Broadway
53 The William G Schmid Family Living Trust
50 Broadway
54 First Insurance Plaza Associates
180 Oak Street
55 Gantzer, Harold L.
56 Broadway

Figure E-5

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDINGS ON SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES		
		DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIAL	TOTAL
1	537 Main Street Retail	1	2	2	1	2	0	0	0	0	0	2	2	12
2	5 Genesee Street Restaurant	0	2	2	0	2	0	0	0	0	0	1	2	9
3	7 Genesee Street Restaurant	0	2	2	0	2	0	0	0	0	0	1	2	9
4	9 Genesee Street Retail	2	2	2	2	2	0	0	0	0	0	2	1	13
5	11 Genesee Street Office	2	2	2	2	2	0	0	0	0	0	2	1	13
6	5 E. Huron Street Retail	2	2	2	0	2	0	0	0	0	0	1	1	10
7	535 Main Street Retail	1	2	2	1	2	0	0	0	0	0	1	1	10
8	510 Washington Street Vacant	1	2	1	2	1	0	0	0	0	0	1	2	10
9	531-533 Main Street Restaurant/Vacant	2	2	2	2	2	0	0	0	0	0	2	2	14
10	531 Main/504-508 Washington	2	2	2	2	2	0	0	0	0	0	2	2	14
11	525 Main Street Restaurant	1	2	2	0	2	0	0	0	0	0	1	2	10
12	523 Main Street	2	2	2	2	2	0	0	0	0	0	2	2	14
13	500 Washington Street	1	1	1	2	2	0	0	0	0	0	2	2	11
14	521 Main Street	0	2	2	0	2	0	0	0	0	0	1	1	8
15	515 - 517 Main Street Vacant	2	2	2	2	2	0	0	0	0	0	2	2	14
16	505 Main Street Retail	0	1	1	0	0	0	0	0	0	0	0	1	3
17	501 Main Street	1	1	1	1	1	0	0	0	0	0	1	1	7
18	495 Main Street	0	1	1	0	1	0	0	0	0	0	0	1	4
19	511-513 Main Street Vacant Lot	NOT REVIEWED												
20	521-525 Main Street Office	1	2	1	1	2	0	0	0	0	0	1	2	10
21	519 Washington St. Use Unknown	1	2	1	1	2	0	0	0	0	0	1	1	9
22	517 Washington Street Restaurant	1	1	1	1	2	0	0	0	0	0	1	2	9
23	515 Washington Street Parking Lot	NOT REVIEWED												
24	23-25 E. Huron Street Office	2	1	1	2	2	0	0	0	0	0	2	2	12
25	31 E. Huron Street Parking Lot/Vacant	NOT REVIEWED												

LEGEND

0 = No Value   1 = Moderate Value   2 = High Value

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDINGS ON SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES		
		DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIAL	TOTAL
26	33 E. Huron Street Parking Lot/Vacant								NOT REVIEWED					
27	35 E. Huron Street Parking Lot/Vacant								NOT REVIEWED					
28	348 Ellicott Vacant	1	0	0	1	2	0	0	0	0	0	1	1	6
29	338 Ellicott Street Manu/Office	1	0	0	1	0	0	0	0	0	0	0	0	2
30	501-499 Washington St. Vacant / Manuf.	2	1	1	2	2	0	0	0	0	0	2	2	12
31	332-335 Ellicott Street Municipal Alarm Sta.	0	0	0	0	0	0	0	0	0	0	2	2	4
32	477 Washington Street Parking Ramp	0	0	0	0	0	0	0	0	0	0	0	0	0
33	465 Washington Street Education	2	1	1	2	2	0	0	0	2	0	2	2	14
34	45-47 E. Mohawk St. Bar/Vacant	1	1	1	1	1	0	0	0	0	0	1	2	8
35	302 Ellicott/51 E Mohawk Bar/Rooming	1	1	1	2	2	1	2	0	0	0	2	2	14
36	296 Ellicott Street Bar/Rooming (part of 35)	1	1	1	2	2	1	2	0	0	0	2	2	14
37	290 Ellicott Street Vacant Lot								NOT REVIEWED					
38	457 Washington Street Parking / Vacant								NOT REVIEWED					
39	20 Broadway Parking / Vacant								NOT REVIEWED					
40	337 Ellicott Street Telephone Garage	0	1	1	0	0	0	0	0	0	0	0	1	3
41	75 E. Huron Street Parking								NOT REVIEWED					
42	329-331 Ellicott St.	1	2	2	2	2	0	0	0	0	0	2	1	12
42A	325-327 Ellicott St.	1	2	1	2	1	0	0	0	0	0	0	1	8
43	321 Ellicott Street	2	1	1	2	2	0	0	0	0	0	2	2	12
44	317 Ellicott Street Parking								NOT REVIEWED					
45	6 Blossom St. (333 Ellicott)	1	1	0	2	2	0	0	0	0	1	1	1	9
46	198 Oak Street Auto Repair	1	0	1	1	1	0	0	0	0	0	2	2	8
47	303 Ellicott Street Parking w/ small struct.	0	0	0	0	0	0	0	0	0	1	0	0	1
48	285-301 Ellicott Street	1	1	1	2	2	0	0	0	0	0	2	2	11
49	4 Blossom								Part of 50 Broadway					
50	2 Blossom	0	1	1	1	1	0	0	0	0	0	1	1	6

LEGEND

0 = No Value   1 = Moderate Value   2 = High Value

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDINGS ON SITE															
	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES		
		DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIAL	TOTAL
51	36 Broadway Office/Vacant	2	1	2	1	2	0	1	2	0	0	2	2	15
52	42 Broadway 1 Story Retail	0	1	1	0	0	0	0	0	0	0	0	1	3
53	50 Broadway 2 Story Vacant	1	1	1	1	2	0	0	0	0	0	1	2	9
54	180 Oak Street Parking / w/office	0	0	0	0	1	0	0	0	0	1	0	0	2
55	56 Broadway Parking	NOT REVIEWED												
IMPACTED BUILINGS OFF SITE														
A	595 Main Street Bank	2	2	2	2	2	1	0	2	2	0	2	2	19
B	535 Washington St. Niagara Mohawk Bldg.	2	2	2	2	2	1	0	2	2	0	2	2	19
C	365 Ellicott Street	1	1	1	1	2	1	0	0	0	0	1	2	10
D	367 Ellicott Street Retail / Office	1	1	1	2	2	1	0	0	0	0	1	2	11
E	52 E. Huron/371 Ellicott Parking	NOT REVIEWED												
F	Parking	NOT REVIEWED												
G	Parking	NOT REVIEWED												
H	Parking	NOT REVIEWED												
I	70-76 E. Huron Street Charity	2	1	2	2	2	0	0	0	0	0	2	2	13
J	245 Oak Street	0	0	0	0	0	0	0	0	0	0	0	0	0
K	217 Oak Street	0	0	0	0	0	0	0	0	0	0	0	0	0
L	Parking	NOT REVIEWED												
M	65 Broadway Service Station	0	0	0	0	0	0	0	0	0	0	0	0	0
N	Buffalo Erie County Public Library	1	0	2	1	2	0	0	0	1	0	1	2	10
O	Parking	NOT REVIEWED												
P	391 Washington Street Hotel	2	2	2	2	2	2	1	2	2	0	2	2	21
Q	395-409 Main Street Brisbane Building	2	2	2	2	2	0	1	1	1	0	2	2	17
R	432-444 Main Street Delaware North	1	2	2	2	2	0	0	1	0	0	2	2	14
S	447-455 Main Street	0	1	1	1	2	0	0	1	0	0	2	2	10
T	12-16 Lafayette Sq. Rand Building	2	2	2	2	2	0	0	2	1	0	2	2	17

LEGEND

0 = No Value 1 = Moderate Value 2 = High Value

Figure E-6

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDINGS ON SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES		
		DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIAL	TOTAL
U	465 Main Street 15 Mohawk	1	2	2	1	2	0	2	0	0	0	1	2	13
V	15 Mohawk Vacant	1	2	2	2	2	0	0	0	0	0	2	2	13
W	11-13 Mohawk Street Entertainment/Office	1	2	2	2	2	0	0	0	0	0	2	1	12
X	475 Main Street	0	2	2	0	1	0	0	0	0	0	0	1	6
Y	477 Main Street	2	2	2	1	1	0	0	0	0	0	1	2	11
Z	483-487 Main Street Vacant	2	2	2	2	2	0	0	0	0	0	2	2	14
AA	446 Main St/255 Pearl Office	1	2	2	1	2	0	0	0	0	0	1	2	11
BB	450 Main Street Former Baker Shoes/Vacant	0	1	2	0	0	0	0	0	0	0	0	1	4
CC	456 Main Street Courtyard Mall	0	2	2	0	2	0	0	0	2	0	0	1	9
DD	472 Main Street Retail / Vacant	1	2	2	1	2	0	0	1	0	0	2	2	13
EE	478 Main Street Offices	1	2	2	1	2	0	1	1	1	0	1	2	14
FF	496 Main Street Restaurant / Vacant	1	2	2	1	2	0	0	0	0	0	2	2	12
GG	500 Main Street Former Berger's	2	2	2	2	2	0	1	1	0	0	1	2	15
HH	510 Main Street Former Berger's	2	2	2	2	2	0	1	1	0	0	1	2	15
II	520-522 Main Street Gamblin Jewelers	0	2	2	0	1	0	0	0	0	0	1	1	7
JJ	Hyatt Hotel	2	1	2	2	2	0	1	2	2	0	2	2	18
KK	Fleet Bank	1	0	0	1	2	0	0	1	0	0	1	2	8
LL	Lafayette Square Monument	2	2	2	2	2	1	1	2	0	0	1	0	15

LEGEND

0 = No Value 1 = Moderate Value 2 = High Value

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDINGS ON MOHAWK SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES			
		DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIAL	TOTAL	BLUEFORM Y/N
1	537 Main Street Retail	1	2	2	1	2	0	0	0	0	0	2	2	12	Y
2	5 Genesee Street Restaurant	0	2	2	0	2	0	0	0	0	0	1	2	9	N
3	7 Genesee Street Restaurant	0	2	2	0	2	0	0	0	0	0	1	2	9	N
4	9 Genesee Street Retail	2	2	2	2	2	0	0	0	0	0	2	1	13	N
5	11 Genesee Street Office	2	2	2	2	2	0	0	0	0	0	2	1	13	N
6	5 E. Huron Street Retail	2	2	2	0	2	0	0	0	0	0	1	1	10	N
7	535 Main Street Retail	1	2	2	1	2	0	0	0	0	0	1	1	10	N
8	510 Washington Street Vacant	1	2	1	2	1	0	0	0	0	0	1	2	10	Y
9	531-533 Main Street Restaurant/Vacant	2	2	2	2	2	0	0	0	0	0	2	2	14	Y
10	531 Main/504-508 Washington	2	2	2	2	2	0	0	0	0	0	2	2	14	Y
11	525 Main Street Restaurant	1	2	2	0	2	0	0	0	0	0	1	2	10	Y
12	523 Main Street	2	2	2	2	2	0	0	0	0	0	2	2	14	N
13	500 Washington Street	1	1	1	2	2	0	0	0	0	0	2	2	11	N
14	521 Main Street	0	2	2	0	2	0	0	0	0	0	1	1	8	N
15	515 - 517 Main Street Vacant	2	2	2	2	2	0	0	0	0	0	2	2	14	N
16	505 Main Street Retail	0	1	1	0	0	0	0	0	0	0	0	1	3	N
17	501 Main Street	1	1	1	1	1	0	0	0	0	0	1	1	7	N
18	495 Main Street	0	1	1	0	1	0	0	0	0	0	0	1	4	N
19	511-513 Main Street Vacant Lot	NOT REVIEWED													
20	521-525 Main Street Office	1	2	1	1	2	0	0	0	0	0	1	2	10	Y
21	519 Washington St. Use Unknown	1	2	1	1	2	0	0	0	0	0	1	1	9	N
22	517 Washington Street Restaurant	1	1	1	1	2	0	0	0	0	0	1	2	9	N
23	515 Washington Street Parking Lot	NOT REVIEWED													
24	23-25 E. Huron Street Office	2	1	1	2	2	0	0	0	0	0	2	2	12	Y
25	31 E. Huron Street Parking Lot/Vacant	NOT REVIEWED													

LEGEND

0 = No Value   1 = Moderate Value   2 = High Value

Figure E-6

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDINGS ON MOHAWK SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES			
		DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIAL	TOTAL	BLUEFORM Y/N
26	33 E. Huron Street Parking Lot/Vacant	NOT REVIEWED													
27	35 E. Huron Street Parking Lot/Vacant	NOT REVIEWED													
28	348 Ellicott Vacant	1	0	0	1	2	0	0	0	0	0	1	1	6	N
29	338 Ellicott Street Manu/Office	1	0	0	1	0	0	0	0	0	0	0	0	2	N
30	501-499 Washington St. Vacant / Manuf.	2	1	1	2	2	0	0	0	0	0	2	2	12	Y
31	332-335 Ellicott Street Municipal Alarm Sta.	0	0	0	0	0	0	0	0	0	0	2	2	4	N
32	477 Washington Street Parking Ramp	0	0	0	0	0	0	0	0	0	0	0	0	0	N
33	465 Washington Street Education	2	1	1	2	2	0	0	0	2	0	2	2	14	Y
34	45-47 E. Mohawk St. Bar/Vacant	1	1	1	1	1	0	0	0	0	0	1	2	8	N
35	302 Ellicott/51 E Mohawk Bar/Rooming	1	1	1	2	2	1	2	0	0	0	2	2	14	Y
36	296 Ellicott Street Bar/Rooming (part of 35)	1	1	1	2	2	1	2	0	0	0	2	2	14	Y
37	290 Ellicott Street Vacant Lot	NOT REVIEWED													
38	457 Washington Street Parking / Vacant	NOT REVIEWED													
39	20 Broadway Parking / Vacant	NOT REVIEWED													
40	337 Ellicott Street Telephone Garage	0	1	1	0	0	0	0	0	0	0	0	1	3	N
41	75 E. Huron Street Parking	NOT REVIEWED													
42	329-331 Ellicott St.	1	2	2	2	2	0	0	0	0	0	2	1	12	N
42A	325-327 Ellicott St.	1	2	1	2	1	0	0	0	0	0	0	1	8	N
43	321 Ellicott Street	2	1	1	2	2	0	0	0	0	0	2	2	12	Y
44	317 Ellicott Street Parking	NOT REVIEWED													
45	6 Blossom St. (333 Ellicott)	1	1	0	2	2	0	0	0	0	1	1	1	9	Y
46	198 Oak Street Auto Repair	1	0	1	1	1	0	0	0	0	0	2	2	8	Y
47	303 Ellicott Street Parking w/ small struct.	0	0	0	0	0	0	0	0	0	1	0	0	1	N
48	285-301 Ellicott Street	1	1	1	2	2	0	0	0	0	0	2	2	11	Y
49	4 Blossom	Part of 50 Broadway													
50	2 Blossom	0	1	1	1	1	0	0	0	0	0	1	1	6	

LEGEND

0 = No Value   1 = Moderate Value   2 = High Value

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDINGS ON MOHAWK SITE														
	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES			
ADDRESS	DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIAL	TOTAL	BLUEFORM Y/N
51 36 Broadway Office/Vacant	2	1	2	1	2	0	1	2	0	0	2	2	15	Y
52 42 Broadway 1 Story Retail	0	1	1	0	0	0	0	0	0	0	0	1	3	N
53 50 Broadway 2 Story Vacant	1	1	1	1	2	0	0	0	0	0	1	2	9	Y
54 180 Oak Street Parking / w/office	0	0	0	0	1	0	0	0	0	1	0	0	2	N
55 56 Broadway Parking	NOT REVIEWED													
IMPACTED BUILINGS OFF SITE														
A 595 Main Street Bank	2	2	2	2	2	1	0	2	2	0	2	2	19	Y
B 535 Washington St. Niagara Mohawk Bldg.	2	2	2	2	2	1	0	2	2	0	2	2	19	Y
C 365 Ellicott Street	1	1	1	1	2	1	0	0	0	0	1	2	10	Y
D 367 Ellicott Street Retail / Office	1	1	1	2	2	1	0	0	0	0	1	2	11	Y
E 52 E. Huron/371 Ellicott Parking	NOT REVIEWED													
F Parking	NOT REVIEWED													
G Parking	NOT REVIEWED													
H Parking	NOT REVIEWED													
I 70-76 E. Huron Street Charity	2	1	2	2	2	0	0	0	0	0	2	2	13	Y
J 245 Oak Street	0	0	0	0	0	0	0	0	0	0	0	0	0	N
K 217 Oak Street	0	0	0	0	0	0	0	0	0	0	0	0	0	N
L Parking	NOT REVIEWED													
M 65 Broadway Service Station	0	0	0	0	0	0	0	0	0	0	0	0	0	N
N Buffalo Erie County Public Library	1	0	2	1	2	0	0	0	1	0	1	2	10	N
O Parking	NOT REVIEWED													
P 391 Washington Street Hotel	2	2	2	2	2	2	1	2	2	0	2	2	21	Y
Q 395-409 Main Street Brisbane Building	2	2	2	2	2	0	1	1	1	0	2	2	17	N
R 432-444 Main Street Delaware North	1	2	2	2	2	0	0	1	0	0	2	2	14	N
S 447-455 Main Street	0	1	1	1	2	0	0	1	0	0	2	2	10	N
T 12-16 Lafayette Sq. Rand Building	2	2	2	2	2	0	0	2	1	0	2	2	17	Y

LEGEND

0 = No Value   1 = Moderate Value   2 = High Value

Figure E-6

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDINGS ON MOHAWK SITE															
	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES			BLUEFORM Y/N
		DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIAL	TOTAL	
U	465 Main Street 15 Mohawk	1	2	2	1	2	0	2	0	0	0	1	2	13	Y
V	15 Mohawk Vacant	1	2	2	2	2	0	0	0	0	0	2	2	13	N
W	11-13 Mohawk Street Entertainment/Office	1	2	2	2	2	0	0	0	0	0	2	1	12	N
X	475 Main Street	0	2	2	0	1	0	0	0	0	0	0	1	6	N
Y	477 Main Street	2	2	2	1	1	0	0	0	0	0	1	2	11	N
Z	483-487 Main Street Vacant	2	2	2	2	2	0	0	0	0	0	2	2	14	Y
AA	446 Main St/255 Pearl Office	1	2	2	1	2	0	0	0	0	0	1	2	11	N
BB	450 Main Street Former Baker Shoes/Vacant	0	1	2	0	0	0	0	0	0	0	0	1	4	N
CC	456 Main Street Courtyard Mall	0	2	2	0	2	0	0	0	2	0	0	1	9	Y
DD	472 Main Street Retail / Vacant	1	2	2	1	2	0	0	1	0	0	2	2	13	Y
EE	478 Main Street Offices	1	2	2	1	2	0	1	1	1	0	1	2	14	Y
FF	496 Main Street Restaurant / Vacant	1	2	2	1	2	0	0	0	0	0	2	2	12	Y
GG	500 Main Street Former Berger's	2	2	2	2	2	0	1	1	0	0	1	2	15	Y
HH	510 Main Street Former Berger's	2	2	2	2	2	0	1	1	0	0	1	2	15	Y
II	520-522 Main Street Gamblin Jewelers	0	2	2	0	1	0	0	0	0	0	1	1	7	N
JJ	Hyatt Hotel	2	1	2	2	2	0	1	2	2	0	2	2	18	N
KK	Fleet Bank	1	0	0	1	2	0	0	1	0	0	1	2	8	N
LL	Lafayette Square Monument	2	2	2	2	2	1	1	2	0	0	1	0	15	N

LEGEND

0 = No Value   1 = Moderate Value   2 = High Value

SUMMARY IMPACT MATRIX OF THE MOHAWK SITE

		ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES	
	ADDRESS	DESIGN (1)	SETTING (1)	LOCATION (1)	MATERIALS (3)	SCALE (3)	ASSOC. W/ EVENTS (3)	ASSOC. W/ LIVES (1)	HIGH ARTISTIC VALUE (1)	WORK OF MASTER (1)	ARCHEOLOGICAL VALUE (1)	REPRESENTATIVE (3)	DEVELOPMENT POTENTIAL (1
1	537 Main Street	1	2	2	1	2	0	0	0	0	0	2	2
	Retail	1	2	2	3	6	0	0	0	0	0	6	2
2	5 Genesee Street	0	2	2	0	2	0	0	0	0	0	1	2
	Restaurant	0	2	2	0	6	0	0	0	0	0	3	2
3	7 Genesee Street	0	2	2	0	2	0	0	0	0	0	1	2
	Restaurant	0	2	2	0	6	0	0	0	0	0	3	2
4	9 Genesee Street	2	2	2	2	2	0	0	0	0	0	2	1
	Retail	2	2	2	6	6	0	0	0	0	0	6	1
5	11 Genesee Street	2	2	2	2	2	0	0	0	0	0	2	1
	Office	2	2	2	6	6	0	0	0	0	0	6	1
6	5 E. Huron Street	2	2	2	0	2	0	0	0	0	0	1	1
	Retail	2	2	2	0	6	0	0	0	0	0	3	1
7	535 Main Street	1	2	2	1	2	0	0	0	0	0	1	1
	Retail	1	2	2	3	6	0	0	0	0	0	3	1
8	510 Washington Street	1	2	1	2	1	0	0	0	0	0	1	2
	Vacant	1	2	1	6	3	0	0	0	0	0	3	2
9	531-533 Main Street	2	2	2	2	2	0	0	0	0	0	2	2
	Restaurant/Vacant	2	2	2	6	6	0	0	0	0	0	6	2
10	531 Main/504-508	2	2	2	2	2	0	0	0	0	0	2	2
	Washington	2	2	2	6	6	0	0	0	0	0	6	2
11	525 Main Street	1	2	2	0	2	0	0	0	0	0	1	2
	Restaurant	1	2	2	0	6	0	0	0	0	0	3	2
12	523 Main Street	2	2	2	2	2	0	0	0	0	0	2	2
		2	2	2	6	6	0	0	0	0	0	6	2
13	500 Washington Street	1	1	1	2	2	0	0	0	0	0	2	2
		1	1	1	6	6	0	0	0	0	0	6	2
14	521 Main Street	0	2	2	0	2	0	0	0	0	0	1	1
		0	2	2	0	6	0	0	0	0	0	3	1
15	515 - 517 Main Street	2	2	2	2	2	0	0	0	0	0	2	2
	Vacant	2	2	2	6	6	0	0	0	0	0	6	2
16	505 Main Street	0	1	1	0	0	0	0	0	0	0	0	1
	Retail	0	1	1	0	0	0	0	0	0	0	0	1
0	501 Main Street	1	1	1	1	1	0	0	0	0	0	1	1
		1	1	1	3	3	0	0	0	0	0	3	1
18	495 Main Street	0	1	1	0	1	0	0	0	0	0	0	1
		0	1	1	0	3	0	0	0	0	0	0	1
19	511-513 Main Street Vacant Lot	NOT REVIEWED											

LEGEND

Numbers shown for each building represent the perceived value of each structure multiplied by the weighting factor for the criteria listed under architectural integrity, cultural values and community values.

VALUES FOR STRUCTURES:	WEIGHTING FACTORS:
0 = No Value	1 = Minor Importance
1 = Moderate Value	3 = Moderate Importance
2 = High Value	5 = Major Importance

The total impact on each building is quantified by multiplying the value assigned to the structure by the weighting factors. Impacts are as follows:

0 - 2 = Minor   2 - 5 = Moderate   5 - 10 = Major (designated by cell shading - example to the right)

Figure E-7

SUMMARY IMPACT MATRIX OF THE MOHAWK SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES	
		DESIGN (1)	SETTING (1)	LOCATION (1)	MATERIALS (3)	SCALE (3)	ASSOC. W/ EVENTS (3)	ASSOC. W/ LIVES (1)	HIGH ARTISTIC VALUE (1)	WORK OF MASTER (1)	ARCHEOLOGICAL VALUE (1)	REPRESENTATIVE (3)	DEVELOPMENT POTENTIAL (1
20	521-525 Main Street	1	2	1	1	2	0	0	0	0	0	1	2
	Office	1	2	1	3	6	0	0	0	0	0	3	2
21	519 Washington St.	1	2	1	1	2	0	0	0	0	0	1	1
	Use Unknown	1	2	1	3	6	0	0	0	0	0	3	1
22	517 Washington Street	1	1	1	1	2	0	0	0	0	0	1	2
	Restaurant	1	1	1	3	6	0	0	0	0	0	3	2
23	515 Washington Street												
	Parking Lot	NOT REVIEWED											
24	23-25 E. Huron Street	2	1	1	2	2	0	0	0	0	0	2	2
	Office	2	1	1	6	6	0	0	0	0	0	6	2
25	31 E. Huron Street												
	Parking Lot/Vacant	NOT REVIEWED											
26	33 E. Huron Street												
	Parking Lot/Vacant	NOT REVIEWED											
27	35 E. Huron Street												
	Parking Lot/Vacant	NOT REVIEWED											
28	348 Ellicott	1	0	0	1	2	0	0	0	0	0	1	1
	Vacant	1	0	0	3	6	0	0	0	0	0	3	1
29	338 Ellicott Street	1	0	0	1	0	0	0	0	0	0	0	0
	Manu/Office	1	0	0	3	0	0	0	0	0	0	0	0
30	501-499 Washington St.	2	1	1	2	2	0	0	0	0	0	2	2
	Vacant / Manuf.	2	1	1	6	6	0	0	0	0	0	6	2
31	332-335 Ellicott Street	0	0	0	0	0	0	0	0	0	0	2	2
	Municipal Alarm Sta.	0	0	0	0	0	0	0	0	0	0	6	2
32	477 Washington Street	0	0	0	0	0	0	0	0	0	0	0	0
	Parking Ramp	0	0	0	0	0	0	0	0	0	0	0	0
33	465 Washington Street	2	1	1	2	2	0	0	0	2	0	2	2
	Education	2	1	1	6	6	0	0	0	2	0	6	2
34	45-47 E. Mohawk St.	1	1	1	1	1	0	0	0	0	0	1	2
	Bar/Vacant	1	1	1	3	3	0	0	0	0	0	3	2
35	302 Ellicott/51 E Mohawk	1	1	1	2	2	1	2	0	0	0	2	2
	Bar/Rooming	1	1	1	6	6	3	2	0	0	0	6	2
36	296 Ellicott Street	1	1	1	2	2	1	2	0	0	0	2	2
	Bar/Rooming (part of 35)	1	1	1	6	6	3	2	0	0	0	6	2
37	290 Ellicott Street												
	Vacant Lot	NOT REVIEWED											
38	457 Washington Street												
	Parking / Vacant	NOT REVIEWED											

LEGEND

Numbers shown for each building represent the perceived value of each structure multiplied by the weighting factor for the criteria listed under architectural integrity, cultural values and community values.

VALUES FOR STRUCTURES:	WEIGHTING FACTORS:
0 = No Value	1 = Minor Importance
1 = Moderate Value	3 = Moderate Importance
2 = High Value	5 = Major Importance

The total impact on each building is quantified by multiplying the value assigned to the structure by the weighting factors. Impacts are as follows:

0 - 2 = Minor 2 - 5 = Moderate 5 - 10 = Major (designated by cell shading - example to the right)

Figure E-7

SUMMARY IMPACT MATRIX OF THE MOHAWK SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES	
		DESIGN (1)	SETTING (1)	LOCATION (1)	MATERIALS (3)	SCALE (3)	ASSOC. W/ EVENTS (3)	ASSOC. W/ LIVES (1)	HIGH ARTISTIC VALUE (1)	WORK OF MASTER (1)	ARCHEOLOGICAL VALUE (1)	REPRESENTATIVE (3)	DEVELOPMENT POTENTIAL (1)
39	20 Broadway												
	Parking / Vacant	NOT REVIEWED											
40	337 Ellicott Street	0	1	1	0	0	0	0	0	0	0	0	1
	Telephone Garage	0	1	1	0	0	0	0	0	0	0	0	1
41	75 E. Huron Street												
	Parking	NOT REVIEWED											
42	329-331 Ellicott St.	1	2	2	2	2	0	0	0	0	0	2	1
		1	2	2	6	6	0	0	0	0	0	6	1
42A	325-327 Ellicott St.	1	2	1	2	1	0	0	0	0	0	0	1
		1	2	1	6	3	0	0	0	0	0	0	1
43	321 Ellicott Street	2	1	1	2	2	0	0	0	0	0	2	2
		2	1	1	6	6	0	0	0	0	0	6	2
44	317 Ellicott Street												
	Parking	NOT REVIEWED											
45	6 Blossom St.	1	1	0	2	2	0	0	0	0	1	1	1
	(333 Ellicott)	1	1	0	6	6	0	0	0	0	1	3	1
46	198 Oak Street	1	0	1	1	1	0	0	0	0	0	2	2
	Auto Repair	1	0	1	3	3	0	0	0	0	0	6	2
47	303 Ellicott Street	0	0	0	0	0	0	0	0	0	1	0	0
	Parking w/ small struct.	0	0	0	0	0	0	0	0	0	1	0	0
48	285-301 Ellicott Street	1	1	1	2	1	0	0	0	0	0	2	2
		1	1	1	6	3	0	0	0	0	0	6	2
49	4 Blossom	Part	of	50	Broad	way							
50	2 Blossom	0	1	1	1	1	0	0	0	0	0	1	1
		0	1	1	3	3	0	0	0	0	0	3	1
51	36 Broadway	2	1	2	1	2	0	1	2	0	0	2	2
	Office/Vacant	2	1	2	3	6	0	1	2	0	0	6	2
52	42 Broadway	0	1	1	0	0	0	0	0	0	0	0	1
	1 Story Retail	0	1	1	0	0	0	0	0	0	0	0	1
53	50 Broadway	1	1	1	1	2	0	0	0	0	0	1	2
	2 Story Vacant	1	1	1	3	6	0	0	0	0	0	3	2
54	180 Oak Street	0	0	0	0	1	0	0	0	0	1	0	0
	Parking / w/office	0	0	0	0	3	0	0	0	0	1	0	0
55	56 Broadway												
	Parking	NOT REVIEWED											

LEGEND

Numbers shown for each building represent the perceived value of each structure multiplied by the weighting factor for the criteria listed under architectural integrity, cultural values and community values.

VALUES FOR STRUCTURES:	WEIGHTING FACTORS:
0 = No Value	1 = Minor Importance
1 = Moderate Value	3 = Moderate Importance
2 = High Value	5 = Major Importance

The total impact on each building is quantified by multiplying the value assigned to the structure by the weighting factors. Impacts are as follows:

0 - 2 = Minor   2 - 5 = Moderate   5 - 10 = Major (designated by cell shading - example to the right)

Figure E-7

SUMMARY IMPACT MATRIX OF THE MOHAWK SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES	
		DESIGN (1)	SETTING (1)	LOCATION (1)	MATERIALS (3)	SCALE (3)	ASSOC. W/ EVENTS (3)	ASSOC. W/ LIVES (1)	HIGH ARTISTIC VALUE (1)	WORK OF MASTER (1)	ARCHEOLOGICAL VALUE (1)	REPRESENTATIVE (3)	DEVELOPMENT POTENTIAL (1
A	595 Main Street	2	2	2	2	2	1	0	2	2	0	2	2
	Bank	2	2	2	6	6	3	0	2	2	0	6	2
B	535 Washington St.	2	2	2	2	2	1	0	2	2	0	2	2
	Niagara Mohawk Bldg.	2	2	2	6	6	3	0	2	2	0	6	2
C	365 Ellicott Street	1	1	1	1	2	1	0	0	0	0	1	2
		1	1	1	3	6	3	0	0	0	0	3	2
D	367 Ellicott Street	1	1	1	2	2	1	0	0	0	0	1	2
	Retail / Office	1	1	1	6	6	3	0	0	0	0	3	2
E	52 E. Huron/371 Ellicott Parking	NOT REVIEWED											
F	Parking	NOT REVIEWED											
G	Parking	NOT REVIEWED											
H	Parking	NOT REVIEWED											
I	70-76 E. Huron Street	2	1	2	2	2	0	0	0	0	0	2	2
	Charity	2	1	2	6	6	0	0	0	0	0	6	2
J	245 Oak Street	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
K	217 Oak Street	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
L	Parking	NOT REVIEWED											
M	65 Broadway	0	0	0	0	0	0	0	0	0	0	0	0
	Service Station	0	0	0	0	0	0	0	0	0	0	0	0
N	Buffalo Erie County	1	0	2	1	2	0	0	0	1	0	1	2
	Public Library	1	0	2	3	6	0	0	0	1	0	3	2
O	Parking	NOT REVIEWED											
P	391 Washington Street	2	2	2	2	2	2	1	2	2	0	2	2
	Hotel	2	2	2	6	6	6	1	2	2	0	6	2
Q	395-409 Main Street	2	2	2	2	2	0	1	1	1	0	2	2
	Brisbane Building	2	2	2	6	6	0	1	1	1	0	6	2
R	432-444 Main Street	1	2	2	2	2	0	0	1	0	0	2	2
	Delaware North	1	2	2	6	6	0	0	1	0	0	6	2
S	447-455 Main Street	0	1	1	1	2	0	0	1	0	0	2	2
		0	1	1	3	6	0	0	1	0	0	6	2

LEGEND

Numbers shown for each building represent the perceived value of each structure multiplied by the weighting factor for the criteria listed under architectural integrity, cultural values and community values.

VALUES FOR STRUCTURES:	WEIGHTING FACTORS:
0 = No Value	1 = Minor Importance
1 = Moderate Value	3 = Moderate Importance
2 = High Value	5 = Major Importance

The total impact on each building is quantified by multiplying the value assigned to the structure by the weighting factors. Impacts are as follows:

0 - 2 = Minor   2 - 5 = Moderate   5 - 10 = Major (designated by cell shading - example to the right)

SUMMARY IMPACT MATRIX OF THE MOHAWK SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES	
		DESIGN (1)	SETTING (1)	LOCATION (1)	MATERIALS (3)	SCALE (3)	ASSOC. W/ EVENTS (3)	ASSOC. W/ LIVES (1)	HIGH ARTISTIC VALUE (1)	WORK OF MASTER (1)	ARCHEOLOGICAL VALUE (1)	REPRESENTATIVE (3)	DEVELOPMENT POTENTIAL (1)
T	12-16 Lafayette Sq.	2	2	2	2	2	0	0	2	1	0	2	2
	Rand Building	2	2	2	6	6	0	0	2	1	0	6	2
U	465 Main Street	1	2	2	1	2	0	2	0	0	0	1	2
		1	2	2	3	6	0	2	0	0	0	3	2
V	15 Mohawk	1	2	2	2	2	0	0	0	0	0	2	2
	Vacant	1	2	2	6	6	0	0	0	0	0	6	2
W	11-13 Mohawk Street	1	2	2	2	2	0	0	0	0	0	2	1
	Entertainment/Office	1	2	2	6	6	0	0	0	0	0	6	1
X	475 Main Street	0	2	2	0	1	0	0	0	0	0	0	1
		0	2	2	0	3	0	0	0	0	0	0	1
Y	477 Main Street	2	2	2	1	1	0	0	0	0	0	1	2
		2	2	2	3	3	0	0	0	0	0	3	2
Z	483-487 Main Street	2	2	2	2	2	0	0	0	0	0	2	2
	Vacant	2	2	2	6	6	0	0	0	0	0	6	2
AA	446 Main St/255 Pearl	1	2	2	1	2	0	0	0	0	0	1	2
	Office	1	2	2	3	6	0	0	0	0	0	3	2
BB	450 Main Street	0	1	2	0	0	0	0	0	0	0	0	1
	Former Baker Shoes/Vacant	0	1	2	0	0	0	0	0	0	0	0	1
CC	456 Main Street	0	2	2	0	2	0	0	0	2	0	0	1
	Courtyard Mall	0	2	2	0	6	0	0	0	2	0	0	1
DD	472 Main Street	1	2	2	1	2	0	0	1	0	0	2	2
	Retail / Vacant	1	2	2	3	6	0	0	1	0	0	6	2
EE	478 Main Street	1	2	2	1	2	0	1	1	1	0	1	2
	Offices	1	2	2	3	6	0	1	1	1	0	3	2
FF	496 Main Street	1	2	2	1	2	0	0	0	0	0	2	2
	Restaurant / Vacant	1	2	2	3	6	0	0	0	0	0	6	2
GG	500 Main Street	2	2	2	2	2	0	1	1	0	0	1	2
	Former Berger's	2	2	2	6	6	0	1	1	0	0	3	2
HH	510 Main Street	2	2	2	2	2	0	1	1	0	0	1	2
	Former Berger's	2	2	2	6	6	0	1	1	0	0	3	2
II	520-522 Main Street	0	2	2	0	1	0	0	0	0	0	1	1
	Gamblin Jewelers	0	2	2	0	3	0	0	0	0	0	3	1
JJ	Hyatt Hotel	2	1	2	2	2	0	1	2	2	0	2	2
		2	1	2	6	6	0	1	2	2	0	6	2
KK	Fleet Bank	1	0	0	1	2	0	0	1	0	0	1	2
		1	0	0	3	6	0	0	1	0	0	3	2
LL	Lafayette Square	2	2	2	2	2	1	1	2	0	0	1	0
	Monument	2	2	2	6	6	3	1	2	0	0	3	0

LEGEND

Numbers shown for each building represent the perceived value of each structure multiplied by the weighting factor for the criteria listed under architectural integrity, cultural values and community values.

VALUES FOR STRUCTURES:	WEIGHTING FACTORS:
0 = No Value	1 = Minor Importance
1 = Moderate Value	3 = Moderate Importance
2 = High Value	5 = Major Importance

The total impact on each building is quantified by multiplying the value assigned to the structure by the weighting factors. Impacts are as follows:

0 - 2 = Minor 2 - 5 = Moderate 5 - 10 = Major (designated by cell shading - example to the right)

As an alternative to the more vertical orientation of the previous scheme, the project team considered the impacts of a more horizontally arranged project. A more horizontal building orientation can be achieved in a two-level plan with meeting rooms and parking on the first level, exhibition space, meeting and ballroom on the second level. There would not be a need for a third level in this scheme. This would create a building approximately 70' high. It would encompass the whole site with little room for proposed expansion or future development, with a link to the Hyatt Hotel across Washington and Main Streets. Vacant space for future development or expansion is located to the south, leaving only a small portion of the north-east corner of Ellicott and Broadway undeveloped, and most of the parking lot south of 465 Washington Street vacant. For the purposes of discussion, it is assumed that the primary entrance is on or near the south-east corner of Washington and Huron Streets. Patron auto/bus drop off is located on Washington Street. Access to the loading dock is on Oak Street. The building would span Ellicott Street. No determination is made on the entrance or exit locations for first level parking.

Impact on site structures:

In addition to the impact listed for the previous three-level program, additional structures will have to be demolished to facilitate this plan. In all, 100% of the structures on the proposed site will require demolition. These include 3 additional structures that SHPO has deemed eligible for the National Register: 465 Washington, 303 Ellicott Street (Ferguson Electric) and 36 Broadway. The latter is associated with noted artist Charles Burchfield as the subject for a painting. Additionally, 285-301, 296 and 302 Ellicott Street are moderately important because of their materials and representative value to downtown development. (Figure E-5, E-6 & E-7)

Impact on adjacent structures:

The impacts of the two level proposed building on adjacent structures are the same as the impacts of the three level program previously discussed.

Impacts on the Theatre District and Joseph Ellicott Historic Districts:

It is not anticipated that the construction of the convention center would have any negative impact on these districts as a whole. The properties in these districts are well occupied, so demolition to accommodate parking is not a concern. The districts are far enough away to not suffer from the immediate affects of the scale of the proposed construction.

WATERFRONT SITE

Construction on the Waterfront site would be located between Scott and Perry Streets, and between Michigan and the HSBC Atrium. It is proposed that some parking would be retained for HSBC behind the atrium and that a new access drive might be cut roughly in line with Illinois Street. This scheme is a horizontal orientation with meeting rooms and exhibit hall on the first level and ballroom on the second level. Loading dock access would be from Scott Street. Primary entrances could be located on both Perry Street and the new access drive. Expansion space is available the east. The building program would require use of the space from Illinois Street to Columbia Street. There is no parking or hotel on this site, with space for this development located to the south between Mississippi and Michigan Streets. This would create a building approximately 40' high with a 60' high portion on the west end. (Figure E-8 & E-9)

Impact on site structures:

Aside from incidental parking guard booths, there are no structures on the development site.

Impact on adjacent structures and Cobblestone Historic District:

The project as proposed would have a similar impact on adjacent structures as the recent construction of the HSBC Arena. The project would be comparable in height to 79 Perry Street, Niagara Insulation. The scale of the adjacent Cobblestone Historic District buildings would be somewhat dwarfed, but existing construction at a distance to the site is comparable in size. The area would benefit from additional spin-off development associated with the convention center as much of the area has been previously razed for surface parking. (Figure E-10)

WATERFRONT SITE

Parcels/Ownership/Address

1 **Berkshire Hathaway Inc.**
33 Scott Street
2 **Erie County Industrial Development Agency**
95 Washington Street

Figure E-8

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDING WATERFRONT SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES		
		DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIAL	TOTAL
1	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1
2	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1
IMPACTED BUILINGS OFF SITE														
A	HSBC Atrium	2	0	0	1	2	0	0	0	0	0	1	1	7
B	Donovan St, Office Bldg.	0	0	0	0	1	0	0	0	0	0	1	1	3
C	Buffalo News	1	1	1	1	2	2	1	0	0	0	1	1	11
D	St. Thruway Authority	0	0	0	0	0	0	0	0	0	1	0	0	1
E	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1
F	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1
G	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1
H	Manufacturing	1	2	1	2	2	0	0	0	0	0	1	1	10
I	Vacant	0	2	1	1	2	0	0	0	0	0	0	1	1
J	79 Perry St. Niagara Insulation	1	0	2	1	1	0	0	0	0	0	1	0	6
K	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1
L	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1
M	51 Perry Street Fruehauf Corp.	0	0	2	0	0	0	0	0	0	0	0	0	0
N	41 Perry Street Sanarak Prod.	1	0	2	1	1	0	0	0	0	0	1	0	6
O	HSBC Arena	1	1	1	1	2	0	0	0	0	0	1	1	8

LEGEND

0 = No Value	1 = Moderate Value	2 = High Value

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDINGS AT WATERFRONT SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES		TOTAL	BLUEFORM Y/N
		DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIAL		
1	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1	N
2	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1	N
IMPACTED BUILINGS OFF SITE															
A	HSBC Atrium	2	0	0	1	2	0	0	0	0	0	1	1	7	N
B	Donovan St, Office Bldg.	0	0	0	0	1	0	0	0	0	0	1	1	3	N
C	Buffalo News	1	1	1	1	2	2	1	0	0	0	1	1	11	N
D	St. Thruway Authority	0	0	0	0	0	0	0	0	0	1	0	0	1	N
E	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1	N
F	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1	N
G	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1	N
H	Manufacturing	1	2	1	2	2	0	0	0	0	0	1	1	10	N
I	Vacant	0	2	1	1	2	0	0	0	0	0	0	1	1	N
J	79 Perry St. Niagara Insulation	1	0	2	1	1	0	0	0	0	0	1	0	6	N
K	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1	N
L	Parking	0	0	0	0	0	0	0	0	0	1	0	0	1	N
M	51 Perry Street Fruehauf Corp.	0	0	2	0	0	0	0	0	0	0	0	0	0	N
N	41 Perry Street Sanarak Prod.	1	0	2	1	1	0	0	0	0	0	1	0	6	N
O	HSBC Arena	1	1	1	1	2	0	0	0	0	0	1	1	8	N

LEGEND

0 = No Value	1 = Moderate Value	2 = High Value

SUMMARY IMPACT MATRIX AT WATERFRONT SITE

ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES	
	DESIGN (1)	SETTING (1)	LOCATION (1)	MATERIALS (3)	SCALE (3)	ASSOC. W/ EVENTS (3)	ASSOC. W/ LIVES (1)	HIGH ARTISTIC VALUE (1)	WORK OF MASTER (1)	ARCHEOLOGICAL VALUE (1)	REPRESENTATIVE (3)	DEVELOPMENT POTENTIAL (1)
1 Parking	0	0	0	0	0	0	0	0	0	1	0	0
	0	0	0	0	0	0	0	0	0	1	0	0
2 Parking	0	0	0	0	0	0	0	0	0	1	0	0
	0	0	0	0	0	0	0	0	0	1	0	0
IMPACTED BUILINGS OFF SITE												
A HSBC Atrium	2	0	0	1	2	0	0	0	0	0	1	1
	2	0	0	3	6	0	0	0	0	0	3	1
B Donovan St, Office Bldg.	0	0	0	0	1	0	0	0	0	0	1	1
	0	0	0	0	3	0	0	0	0	0	3	1
C Buffalo News	1	1	1	1	2	2	1	0	0	0	1	1
	1	1	1	3	6	6	1	0	0	0	3	1
D St. Thruway Authority	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	1	0	0
E Parking	0	0	0	0	0	0	0	0	0	1	0	0
	0	0	0	0	0	0	0	0	0	1	0	0
F Parking	0	0	0	0	0	0	0	0	0	1	0	0
	0	0	0	0	0	0	0	0	0	1	0	0
G Parking	0	0	0	0	0	0	0	0	0	1	0	0
	0	0	0	0	0	0	0	0	0	1	0	0
H Manufacturing	1	2	1	2	2	0	0	0	0	0	1	1
	1	2	1	6	6	0	0	0	0	0	3	1
I Vacant	0	2	1	1	2	0	0	0	0	0	1	1
	0	2	1	3	6	0	0	0	0	0	3	1
J 79 Perry St.	1	0	2	1	1	0	0	0	0	0	1	0
Niagara Insulation	1	0	2	3	3	0	0	0	0	0	3	0
K Parking	0	0	0	0	0	0	0	0	0	1	0	0
	0	0	0	0	0	0	0	0	0	1	0	0
L Parking	0	0	0	0	0	0	0	0	0	1	0	0
	0	0	0	0	0	0	0	0	0	1	0	0
M 51 Perry Street	0	0	2	0	0	0	0	0	0	0	0	0
Fruehauf Corp.	0	0	2	0	0	0	0	0	0	0	0	0
N 41 Perry Street	1	0	2	1	1	0	0	0	0	0	1	0
Sanarak Prod.	1	0	2	3	3	0	0	0	0	0	3	0
O HSBC Arena	1	1	1	1	2	0	0	0	0	0	1	1
	1	1	1	3	6	0	0	0	0	0	3	1

LEGEND

Numbers shown for each building represent the perceived value of each structure multiplied by the weighting factor for the criteria listed under architectural integrity, cultural values and community values.

VALUES FOR STRUCTURES:	WEIGHTING FACTORS:
0 = No Value	1 = Minor Importance
1 = Moderate Value	3 = Moderate Importance
2 = High Value	5 = Major Importance

The total impact on each building is quantified by multiplying the value assigned to the structure by the weighting factors. Impacts are as follows:

0 - 2 = Minor   2 - 5 = Moderate   5 - 10 = Major (designated by cell shading - example to the right)

EXISTING CONVENTION CENTER SITE –

Expansion of the existing Convention Center would involve the complex addition of exhibit space on the east of the existing building across Pearl Street. This would create a multi-level exhibit hall with a ballroom above. It increases the existing convention center height by approximately 20-30', for a total height of approximately 80'. There is no additional room for expansion once this proposed expansion would be undertaken. . (Figure E-11& E-12)

Impact on site structures:

This expansion alternative involves the demolition of a minimum of 6 structures on Main and Pearl Street. These structures are primarily through-block construction of limited value. Of note is 283 Pearl Street, important for its use of materials, and one of the only buildings on the site that have not undergone significant alteration over the last 40 years. 472 Main Street is significant because of its representative nature in the development of Buffalo. Previous alterations to the buildings have diminished their development potential and the area would benefit from the intervention in construction of the facility on this site. While all the buildings proposed for demolition are important because of their scale, the proposed convention center expansion is comparable in scale to the existing and surround context. (Figure E-13)

Impact on adjacent structures

As noted above, the proposed expansion would be in keeping with the scale of the surrounding site, as virtually all of the adjacent buildings are considered important because of their scale. Additionally, 10 buildings are important for their use of materials: The Hyatt Hotel, 500 & 510 Main Street (former Berger's Department Store), 523, 515-517, 483-487, 432-444 and 531-533 Main Street, 17 Court Street and Lafayette Square

are considered important because of their materials use. The Hyatt Hotel, 432-444, 447-455, 496, 515-517, 523, 537 and 531-533 Main Street ad 17 Court Street are also important representative buildings. It is expected that the proposed development would positively impact the surrounding site.

The Former YMCA/Olympic Tower would be further compressed by this expansion, however. This national landmark's primary entrance and façade was located on Genesee Street. The expansion would eliminate more of the former street that is now a pedestrian thoroughfare.

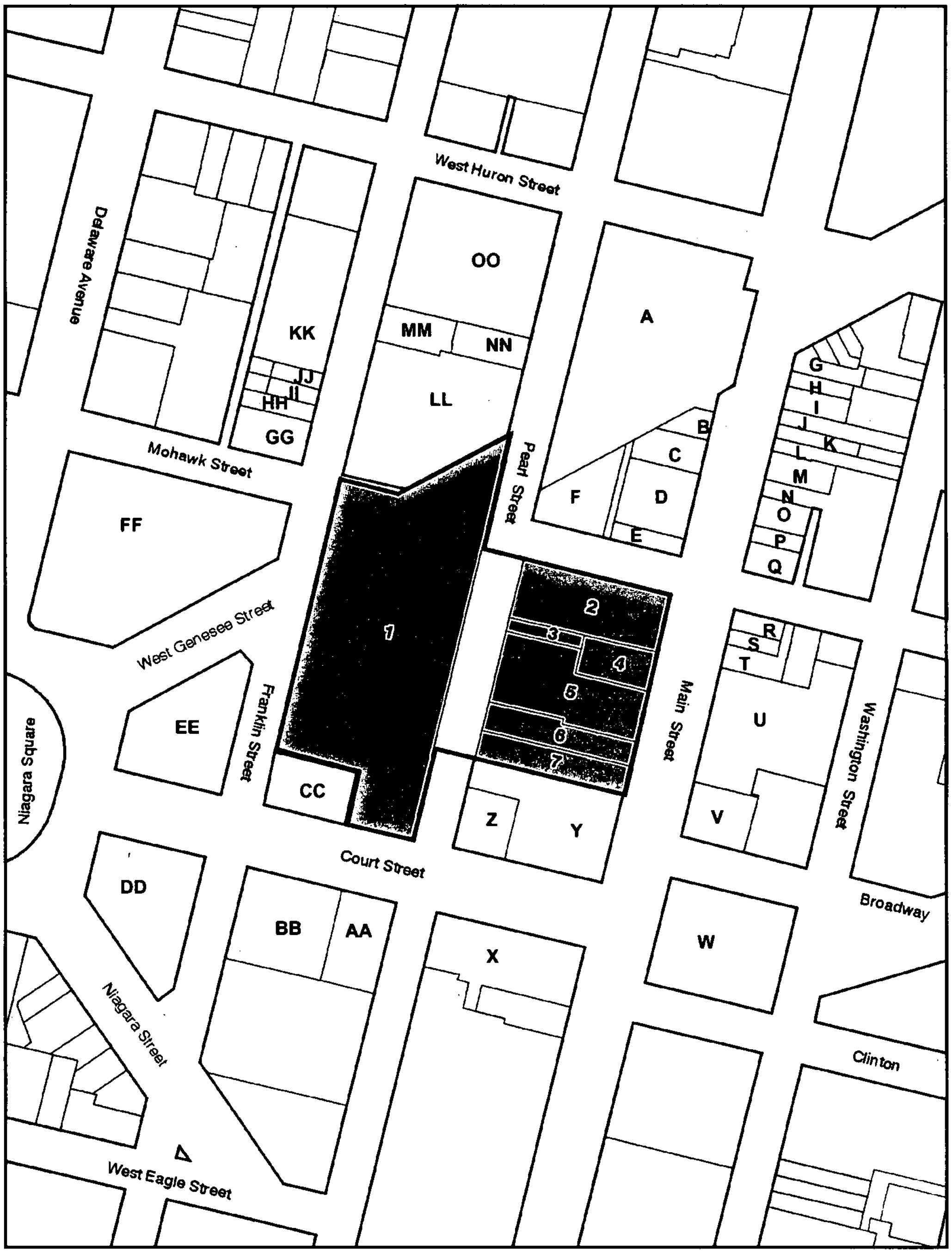
Impacts on the Joseph Ellicott and Theatre District Historic Districts:

The existing convention center is not currently perceived as a positive visual influence on the surrounding neighborhoods. Renovation of the facility that includes a sensitive treatment of the façade would be welcomed as an impact on the adjacent historic districts. The scale of the proposed building is in keeping with the scale and density appropriate for this district.

THE MODIFIED NO-ACTION ALTERNATIVE –

Should no expansion of the existing convention center occur, i.e., the No-Action Alternative, modifications to the existing facility would have to be made to maintain the market share of the facility. Such modifications would have no further adverse impact on the adjoining buildings, surrounding neighborhood, or nearby Historic Districts. Any required increases in parking could be achieved within the City's current parking expansion plans.

EXISTING CONVENTION CENTER SITE



Parcels/Ownership/Address

1 County of Erie Convention Center
153 Franklin Street
2 Mohawk Group
478 Main Street
3 Malik, Naseem M.
283 Pearl Street
4 Malik, Naseem M.
472 Main Street
5 4858 Group LP
460 Main Street
6 Los Angeles Holocaust Memorial Monument Fund
456 Main Street
7 Rite Aid Center of Buffalo Inc. *565
450 Main Street

Figure E-11

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDINGS AT CONVENTION CENTER SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES		
		DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIAL	TOTAL
1	Convention Center	0	0	2	0	0	0	0	0	0	0	0	2	4
2	478 Main Street Offices	1	2	2	1	2	0	1	1	1	0	1	2	14
3	283 Pearl Street Retail/Vacant	0	2	1	2	2	0	0	0	0	0	1	2	10
4	472 Main Street Retail / Vacant	1	2	2	1	2	0	0	1	0	0	2	2	13
5	456 Main Street Courtyard Mall	0	2	2	0	2	0	0	0	2	0	0	1	9
6	450 Main Street Former Baker Shoes/Vacant	0	1	2	0	0	0	0	0	0	0	0	1	4
7	446 Main St/255 Pearl Office	1	2	2	1	2	0	0	0	0	0	1	2	11
IMPACTED BUILINGS OFF SITE														
A	Hyatt Hotel	2	1	2	2	2	0	1	2	2	0	2	2	18
B	520-522 Main Street Gamblin Jewelers	0	2	2	0	1	0	0	0	0	0	1	1	7
C	510 Main Street Former Berger's	2	2	2	2	2	0	1	1	0	0	1	2	15
D	500 Main Street Former Berger's	2	2	2	2	2	0	1	1	0	0	1	2	15
E	496 Main Street Restaurant / Vacant	1	2	2	1	2	0	0	0	0	0	2	2	12
F	Parking	NOT REVIEWED												
G	537 Main Street Retail	1	2	2	1	2	0	0	0	0	0	2	2	12
H	535 Main Street Retail	1	2	2	1	2	0	0	0	0	0	1	1	10
I	531-533 Main Street Restaurant/Vacant	2	2	2	2	2	0	0	0	0	0	2	2	14
J	525 Main Street Restaurant	1	2	2	0	2	0	0	0	0	0	1	2	10
K	523 Main Street	2	2	2	2	2	0	0	0	0	0	2	2	14
L	521 Main Street	0	2	2	0	2	0	0	0	0	0	1	1	8
M	515 - 517 Main Street Vacant	2	2	2	2	2	0	0	0	0	0	2	2	14
N	511-513 Main Street Vacant Lot	NOT REVIEWED												
O	505 Main Street Retail	0	1	1	0	0	0	0	0	0	0	0	1	3
P	501 Main Street	1	1	1	1	1	0	0	0	0	0	1	1	7

LEGEND

0 = No Value 1 = Moderate Value 2 = High Value

Figure E-12

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDINGS AT CONVENTION CENTER SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES		
		DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIA	TOTAL
Q	495 Main Street	0	1	1	0	1	0	0	0	0	0	0	1	4
R	483-487 Main Street Vacant	2	2	2	2	2	0	0	0	0	0	1	1	12
S	477 Main Street	1	2	2	1	1	0	0	0	0	0	1	1	9
T	475 Main Street	0	1	0	0	0	0	0	0	0	0	1	2	4
U	465 Main Street	1	2	2	1	2	0	2	0	0	0	1	2	13
V	447-455 Main Street	0	1	1	1	2	0	0	1	0	0	2	2	10
W	Lafayette Square Monument	2	2	2	2	2	1	1	2	0	0	1	0	15
X	Liberty Bank	2	2	2	2	2	0	1	2	2	0	2	2	19
Y	432-444 Main Street Delaware North	1	2	2	2	2	0	0	1	0	0	2	2	14
Z	17 Court Street	2	2	2	2	2	0	0	1	0	0	2	2	15
AA	Vacant	NOT REVIEWED												
BB	Vacant	NOT REVIEWED												
CC	45 Court Street Office / Retail	2	1	2	2	2	0	0	1	0	0	2	2	14
DD	Federal Court	2	2	2	2	2	0	0	2	2	0	2	0	16
EE	Federal Court	2	2	2	2	2	0	1	2	2	0	2	0	17
FF	Statler Tower	2	2	2	2	2	0	0	1	1	0	2	2	16
GG	166 Franklin Crosby Bldg.	2	2	2	2	2	0	0	0	0	0	2	2	14
HH	172 Franklin Restaurant	1	2	2	1	2	0	0	0	0	0	1	2	11
II	174 Franklin	1	2	2	2	2	0	0	0	0	0	2	2	13
JJ	176 Franklin	1	2	2	1	2	0	0	0	0	0	2	1	11
KK	190 Franklin	1	0	0	1	1	0	0	0	0	0	1	2	6
LL	159-170 Franklin Olympic Tower	2	2	2	2	2	2	0	2	2	0	2	2	20
MM	181-183 Franklin	1	2	2	1	2	0	0	0	0	0	2	2	12
NN	318-320 Pearl	2	2	2	2	2	0	0	2	0	0	2	2	16
OO	Parking Garage	0	0	0	0	0	0	0	0	0	0	0	2	2

LEGEND

0 = No Value   1 = Moderate Value   2 = High Value

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDINGS AT EXISTING CONVENTION CENTER SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES		TOTAL	BLUEFORM Y/N
		DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIAL		
1	Convention Center	0	0	2	0	0	0	0	0	0	0	0	2	4	N
2	478 Main Street Offices	1	2	2	1	2	0	1	1	1	0	1	2	14	Y
3	283 Pearl Street Retail/Vacant	0	2	1	2	2	0	0	0	0	0	1	2	10	N
4	472 Main Street Retail / Vacant	1	2	2	1	2	0	0	1	0	0	2	2	13	Y
5	456 Main Street Courtyard Mall	0	2	2	0	2	0	0	0	2	0	0	1	9	Y
6	450 Main Street Former Baker Shoes/Vacant	0	1	2	0	0	0	0	0	0	0	0	1	4	N
7	446 Main St/255 Pearl Office	1	2	2	1	2	0	0	0	0	0	1	2	11	N
IMPACTED BUILINGS OFF SITE															
A	Hyatt Hotel	2	1	2	2	2	0	1	2	2	0	2	2	18	N
B	520-522 Main Street Gamblin Jewelers	0	2	2	0	1	0	0	0	0	0	1	1	7	N
C	510 Main Street Former Berger's	2	2	2	2	2	0	1	1	0	0	1	2	15	Y
D	500 Main Street Former Berger's	2	2	2	2	2	0	1	1	0	0	1	2	15	Y
E	496 Main Street Restaurant / Vacant	1	2	2	1	2	0	0	0	0	0	2	2	12	Y
F	Parking	NOT REVIEWED													
G	537 Main Street Retail	1	2	2	1	2	0	0	0	0	0	2	2	12	Y
H	535 Main Street Retail	1	2	2	1	2	0	0	0	0	0	1	1	10	N
I	531-533 Main Street Restaurant/Vacant	2	2	2	2	2	0	0	0	0	0	2	2	14	Y
J	525 Main Street Restaurant	1	2	2	0	2	0	0	0	0	0	1	2	10	Y
K	523 Main Street	2	2	2	2	2	0	0	0	0	0	2	2	14	N
L	521 Main Street	0	2	2	0	2	0	0	0	0	0	1	1	8	N
M	515 - 517 Main Street Vacant	2	2	2	2	2	0	0	0	0	0	2	2	14	N
N	511-513 Main Street Vacant Lot	NOT REVIEWED													
O	505 Main Street Retail	0	1	1	0	0	0	0	0	0	0	0	1	3	N
P	501 Main Street	1	1	1	1	1	0	0	0	0	0	1	1	7	N

LEGEND

0 = No Value 1 = Moderate Value 2 = High Value

MATRIX OF ARCHITECTURAL INTEGRITY / CULTURAL VALUES / COMMUNITY VALUES FOR BUILDINGS AT EXISTING CONVENTION CENTER SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES		TOTAL	BLUEFORM Y/N
		DESIGN	SETTING	LOCATION	MATERIALS	SCALE	ASSOC. W/ EVENTS	ASSOC. W/ LIVES	HIGH ARTISTIC VALUE	WORK OF MASTER	ARCHEOLOGICAL VALUE	REPRESENTATIVE	DEVELOPMENT POTENTIAL		
Q	495 Main Street	0	1	1	0	1	0	0	0	0	0	0	1	4	N
R	483-487 Main Street Vacant	2	2	2	2	2	0	0	0	0	0	1	1	12	Y
S	477 Main Street	1	2	2	1	1	0	0	0	0	0	1	1	9	N
T	475 Main Street	0	1	0	0	0	0	0	0	0	0	1	2	4	N
U	465 Main Street	1	2	2	1	2	0	2	0	0	0	1	2	13	Y
V	447-455 Main Street	0	1	1	1	2	0	0	1	0	0	2	2	10	N
W	Lafayette Square Monument	2	2	2	2	2	1	1	2	0	0	1	0	15	N
X	Liberty Bank	2	2	2	2	2	0	1	2	2	0	2	2	19	Y
Y	432-444 Main Street Delaware North	1	2	2	2	2	0	0	1	0	0	2	2	14	N
Z	17 Court Street	2	2	2	2	2	0	0	1	0	0	2	2	15	Y
AA	Vacant	NOT REVIEWED													
BB	Vacant	NOT REVIEWED													
CC	45 Court Street Office / Retail	2	1	2	2	2	0	0	1	0	0	2	2	14	Y
DD	Federal Court	2	2	2	2	2	0	0	2	2	0	2	0	16	Y
EE	Federal Court	2	2	2	2	2	0	1	2	2	0	2	0	17	Y
FF	Statler Tower	2	2	2	2	2	0	0	1	1	0	2	2	16	N
GG	166 Franklin Crosby Bldg.	2	2	2	2	2	0	0	0	0	0	2	2	14	N
HH	172 Franklin Restaurant	1	2	2	1	2	0	0	0	0	0	1	2	11	N
II	174 Franklin	1	2	2	2	2	0	0	0	0	0	2	2	13	N
JJ	176 Franklin	1	2	2	1	2	0	0	0	0	0	2	1	11	N
KK	190 Franklin	1	0	0	1	1	0	0	0	0	0	1	2	6	N
LL	159-170 Franklin Olympic Tower	2	2	2	2	2	2	0	2	2	0	2	2	20	Y
MM	181-183 Franklin	1	2	2	1	2	0	0	0	0	0	2	2	12	N
NN	318-320 Pearl	2	2	2	2	2	0	0	2	0	0	2	2	16	Y
OO	Parking Garage	0	0	0	0	0	0	0	0	0	0	0	2	2	N

LEGEND

0 = No Value 1 = Moderate Value 2 = High Value

SUMMARY IMPACT MATRIX OF THE EXISTING CONVENTION CENTER SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES	
		DESIGN (1)	SETTING (1)	LOCATION (1)	MATERIALS (3)	SCALE (3)	ASSOC. W/ EVENTS (3)	ASSOC. W/ LIVES (1)	HIGH ARTISTIC VALUE (1)	WORK OF MASTER (1)	ARCHEOLOGICAL VALUE (1)	REPRESENTATIVE (3)	DEVELOPMENT POTENTIAL (1
1	Convention Center	0	0	2	0	0	0	0	0	0	0	0	2
		0	0	2	0	0	0	0	0	0	0	0	2
2	478 Main Street	1	2	2	1	2	0	1	1	1	0	1	2
	Offices	1	2	2	3	6	0	1	1	1	0	3	2
3	283 Pearl Street	0	2	1	2	2	0	0	0	0	0	1	2
	Retail/Vacant	0	2	1	6	6	0	0	0	0	0	3	2
4	472 Main Street	1	2	2	1	2	0	0	1	0	0	2	2
	Retail / Vacant	1	2	2	3	6	0	0	1	0	0	6	2
5	456 Main Street	0	2	2	0	2	0	0	0	2	0	0	1
	Courtyard Mall	0	2	2	0	6	0	0	0	2	0	0	1
6	450 Main Street	0	1	2	0	0	0	0	0	0	0	0	1
	Former Baker Shoes/Vacant	0	1	2	0	0	0	0	0	0	0	0	1
7	446 Main St/255 Pearl	1	2	2	1	2	0	0	0	0	0	1	2
	Office	1	2	2	3	6	0	0	0	0	0	3	2
IMPACTED BUILINGS OFF SITE													
A	Hyatt Hotel	2	1	2	2	2	0	1	2	2	0	2	2
		2	1	2	6	6	0	1	2	2	0	6	2
B	520-522 Main Street	0	2	2	0	1	0	0	0	0	0	1	1
	Gamblin Jewelers	0	2	2	0	3	0	0	0	0	0	3	1
C	510 Main Street	2	2	2	2	2	0	1	1	0	0	1	2
	Former Berger's	2	2	2	6	6	0	1	1	0	0	3	2
D	500 Main Street	2	2	2	2	2	0	1	1	0	0	1	2
	Former Berger's	2	2	2	6	6	0	1	1	0	0	3	2
E	496 Main Street	1	2	2	1	2	0	0	0	0	0	2	2
	Restaurant / Vacant	1	2	2	3	6	0	0	0	0	0	6	2
F	Parking	NOT REVIEWED											
G	537 Main Street	1	2	2	1	2	0	0	0	0	0	2	2
	Retail	1	2	2	3	6	0	0	0	0	0	6	2
H	535 Main Street	1	2	2	1	2	0	0	0	0	0	1	1
	Retail	1	2	2	3	6	0	0	0	0	0	3	1
I	531-533 Main Street	2	2	2	2	2	0	0	0	0	0	2	2
	Restaurant/Vacant	2	2	2	6	6	0	0	0	0	0	6	2

LEGEND

Numbers shown for each building represent the perceived value of each structure multiplied by the weighting factor for the criteria listed under architectural integrity, cultural values and community values.

VALUES FOR STRUCTURES:	WEIGHTING FACTORS:
0 = No Value	1 = Minor Importance
1 = Moderate Value	3 = Moderate Importance
2 = High Value	5 = Major Importance

The total impact on each building is quantified by multiplying the value assigned to the structure by the weighting factors. Impacts are as follows:

0 - 2 = Minor 2 - 5 = Moderate 5 - 10 = Major (designated by cell shading - example to the right)

SUMMARY IMPACT MATRIX OF THE EXISTING CONVENTION CENTER SITE

	ADDRESS	ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES	
		DESIGN (1)	SETTING (1)	LOCATION (1)	MATERIALS (3)	SCALE (3)	ASSOC. W/ EVENTS (3)	ASSOC. W/ LIVES (1)	HIGH ARTISTIC VALUE (1)	WORK OF MASTER (1)	ARCHEOLOGICAL VALUE (1)	REPRESENTATIVE (3)	DEVELOPMENT POTENTIAL (1)
J	525 Main Street	1	2	2	0	2	0	0	0	0	0	1	2
	Restaurant	1	2	2	0	6	0	0	0	0	0	3	2
K	523 Main Street	2	2	2	2	2	0	0	0	0	0	2	2
		2	2	2	6	6	0	0	0	0	0	6	2
L	521 Main Street	0	2	2	0	2	0	0	0	0	0	1	1
		0	2	2	0	6	0	0	0	0	0	3	1
M	515 - 517 Main Street	2	2	2	2	2	0	0	0	0	0	2	2
	Vacant	2	2	2	6	6	0	0	0	0	0	6	2
N	511-513 Main Street												
	Vacant Lot	NOT REVIEWED											
O	505 Main Street	0	1	1	0	0	0	0	0	0	0	0	1
	Retail	0	1	1	0	0	0	0	0	0	0	0	1
P	501 Main Street	1	1	1	1	1	0	0	0	0	0	1	1
		1	1	1	3	3	0	0	0	0	0	3	1
Q	495 Main Street	0	1	1	0	1	0	0	0	0	0	0	1
		0	1	1	0	3	0	0	0	0	0	0	1
R	483-487 Main Street	2	2	2	2	2	0	0	0	0	0	1	1
	Vacant	2	2	2	6	6	0	0	0	0	0	3	1
S	477 Main Street	1	2	2	1	1	0	0	0	0	0	1	1
		1	2	2	3	3	0	0	0	0	0	3	1
T	475 Main Street	0	1	0	0	0	0	0	0	0	0	1	2
		0	1	0	0	0	0	0	0	0	0	3	2
U	465 Main Street	1	2	2	1	2	0	2	0	0	0	1	2
		1	2	2	3	6	0	2	0	0	0	3	2
V	447-455 Main Street	0	1	1	1	2	0	0	1	0	0	2	2
		0	1	1	3	6	0	0	1	0	0	6	2
W	Lafayette Square	2	2	2	2	2	1	1	2	0	0	1	0
	Monument	2	2	2	6	6	3	1	2	0	0	3	0
X	Liberty Bank	2	2	2	2	2	0	1	2	2	0	2	2
		2	2	2	6	6	0	1	2	2	0	6	2
Y	432-444 Main Street	1	2	2	2	2	0	0	1	0	0	2	2
	Delaware North	1	2	2	6	6	0	0	1	0	0	6	2
Z	17 Court Street	2	2	2	2	2	0	0	1	0	0	2	2
		2	2	2	6	6	0	0	1	0	0	6	2

LEGEND

Numbers shown for each building represent the perceived value of each structure multiplied by the weighting factor for the criteria listed under architectural integrity, cultural values and community values.

VALUES FOR STRUCTURES:	WEIGHTING FACTORS:
0 = No Value	1 = Minor Importance
1 = Moderate Value	3 = Moderate Importance
2 = High Value	5 = Major Importance

The total impact on each building is quantified by multiplying the value assigned to the structure by the weighting factors. Impacts are as follows:

0 - 2 = Minor 2 - 5 = Moderate 5 - 10 = Major (designated by cell shading - example to the right)

SUMMARY IMPACT MATRIX OF THE EXISTING CONVENTION CENTER SITE

ADDRESS		ARCHITECTURAL INTEGRITY (INTACT)					CULTURAL VALUES					COMMUNITY VALUES	
		DESIGN (1)	SETTING (1)	LOCATION (1)	MATERIALS (3)	SCALE (3)	ASSOC. W/ EVENTS (3)	ASSOC. W/ LIVES (1)	HIGH ARTISTIC VALUE (1)	WORK OF MASTER (1)	ARCHEOLOGICAL VALUE (1)	REPRESENTATIVE (3)	DEVELOPMENT POTENTIAL (1)
AA	Vacant	NOT REVIEWED											
BB	Vacant	NOT REVIEWED											
CC	45 Court Street	2	1	2	2	2	0	0	1	0	0	2	2
	Office / Retail	2	1	2	6	6	0	0	1	0	0	6	2
DD	Federal Court	2	2	2	2	2	0	0	2	2	0	2	0
		2	2	2	6	6	0	0	2	2	0	6	0
EE	Federal Court	2	2	2	2	2	0	1	2	2	0	2	0
		2	2	2	6	6	0	1	2	2	0	6	0
FF	Statler Tower	2	2	2	2	2	0	0	1	1	0	2	2
		2	2	2	6	6	0	0	1	1	0	6	2
GG	166 Franklin	2	2	2	2	2	0	0	0	0	0	2	2
	Crosby Bldg.	2	2	2	6	6	0	0	0	0	0	6	2
HH	172 Franklin	1	2	2	1	2	0	0	0	0	0	1	2
	Restaurant	1	2	2	3	6	0	0	0	0	0	3	2
II	174 Franklin	1	2	2	2	2	0	0	0	0	0	2	2
		1	2	2	6	6	0	0	0	0	0	6	2
JJ	176 Franklin	1	2	2	1	2	0	0	0	0	0	2	1
		1	2	2	3	6	0	0	0	0	0	6	1
KK	190 Franklin	1	0	0	1	1	0	0	0	0	0	1	2
		1	0	0	3	3	0	0	0	0	0	3	2
LL	159-170 Franklin	2	2	2	2	2	2	0	2	2	0	2	2
	Olympic Tower	2	2	2	6	6	6	0	2	2	0	6	2
MM	181-183 Franklin	1	2	2	1	2	0	0	0	0	0	2	2
		1	2	2	3	6	0	0	0	0	0	6	2
NN	318-320 Pearl	2	2	2	2	2	0	0	2	0	0	2	2
		2	2	2	6	6	0	0	2	0	0	6	2
OO	Parking Garage	0	0	0	0	0	0	0	0	0	0	0	2
		0	0	0	0	0	0	0	0	0	0	0	2

LEGEND

Numbers shown for each building represent the perceived value of each structure multiplied by the weighting factor for the criteria listed under architectural integrity, cultural values and community values.

VALUES FOR STRUCTURES:	WEIGHTING FACTORS:
0 = No Value	1 = Minor Importance
1 = Moderate Value	3 = Moderate Importance
2 = High Value	5 = Major Importance

The total impact on each building is quantified by multiplying the value assigned to the structure by the weighting factors. Impacts are as follows:

0 - 2 = Minor 2 - 5 = Moderate 5 - 10 = Major (designated by cell shading - example to the right)

PROPOSED REUSE MATRIX

CRITERIA		SINGLE TENANT RETAIL	MULTI TENANT RETAIL	COUNTY OFFICE	MIXED USE OFFICE	SCHOOL - PUBLIC, PRIVATE/SECONDARY	ATHLETIC FACILITY GYMNASTICS, EXERCISE, TENNIS	CASINO	LIBRARY
MAGNET	20%	20	20	10	0	10	10	20	10
BUILDING TYPE	10%	10	0	5	0	10	10	10	5
LOCATION ACCESS	10%	10	10	10	10	10	10	10	10
LOCATION DESIGN	10%	10	5	10	5	5	5	10	10
SQUARE FOOTAGE	10%	10	10	10	10	10	10	10	5
COMPLEMENT VS. COMPETE	10%	10	0	5	0	10	5	10	0
NEIGHBORHOOD	5%	5	2.5	5	2.5	2.5	2.5	5	5
SITE ADAPTATION	5%	2.5	2.5	2.5	2.5	0	2.5	2.5	5
HVAC	5%	5	2.5	2.5	0	0	5	5	0
CODES	10%	10	0	5	5	0	10	10	5
ZONING	5%	5	5	5	5	5	5	5	5
TOTAL	100%	97.5	57.5	70	40	62.5	75	97.5	60

LEGEND

FULL WEIGHT	PROPOSED USE IS HIGHLY COMPATABLE WITH EXISTING BUILDING
HALF WEIGHT	PROPOSED USE IS COMPATABLE WITH EXISTING BUILDING
NO WEIGHT	PROPOSED USE IS NOT COMPATABLE WITH EXISTING BUILDING

entrance is unused. Clerestory windows ring the exhibit floor, however there is no direct visual access at floor level for occupants. The exhibit floor ceiling is approximately 25 feet.

After assessing the condition of the existing structure the EIS team has developed a test with which to screen our set of possible uses. This test lists all factors important in making the reuse of the building a success and the degree to which the new building type would be compatible with this space. Each criterion was given a weighting factor (%) which reflects its relative importance in selecting a reuse. This screening was done on a matrix. The definitions of the criteria and the reason for their assigned weights follow:

WOULD THE NEW USE:

...ACT AS MAGNET CENTER? – The degree to which the building type can act as a major attraction within the city, region, and state. If it would become a hub in the area and act as a drawing force for the City or region.

> 20% - because of Buffalo's current situation and decreasing population this was considered to be the most important of this test.

...SATISFY NEED FOR BUILDING TYPE? – Would the project provide a building type or use that is not already well represented in the area (e.g. another shopping center would be redundant)?

> 10% - non-redundancy is important for successful operation but not as important as being a magnet center.

...FIND LOCATION ACCESSIBLE? – How important is direct access to the new use and is the existing access by transportation arteries (major highways, bus lines, subways, railways, airport) satisfactory.

> 10% - very important but weighted less heavily because the accessibility could be improved if the new use was a great magnet center.

...FIND LOCATION DESIRABLE? – Is the site a desirable location for that building type, relating to the surrounding fabric, uses, and types of other buildings – will the new use accept the neighborhood.

10% - the site is self-contained and fairly well buffered from everything except the railroad tracks.

...CONFORM TO OVERALL BUILDING SQUARE FOOTAGE? – How the square footage requirements of the new use will fit into the existing building shell.

10% - Modification of shell through addition is difficult, therefore this criteria is weighted moderately.

...COMPLEMENT RATHER THEN COMPETE WITH OTHER CENTRAL BUSINESS DISTRICT USES? – Would conversion of facility to new use creates another vacant public building or private tenants from other private sector properties.

10% - Publicly funded (Subsidized) projects should not provide undue competition for private sector investment. Developing one property to vacate another public property would just shift the reuse study for this property to another.

...HAVE SATISFACTORY RELATIONSHIP WITH NEIGHBORHOOD? – Whether the new use will adapt and conform to the existing neighborhood and respect the social, commercial, and historical conditions already established – will the neighborhood accept the new use.

5% - the area is so diverse that almost any sue could be considered compatible.

...ADAPT TO THE SITE? – To what extent the existing site fulfills spatial (scale and proportion) requirements of the new use, especially relating to parking, road access, infrastructure open spaces, parks, landscaping.

5% - the site is very adaptable because of all the open space so this criteria is weighted less.

...USE EXISTING TYPE OF HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)? – How much the existing building would have to be reworked in order to fulfill mechanical, electrical, plumbing, fire protection, lighting and acoustical requirements of the new use.

5% - the existing HVAC systems are in such a condition that extensive reworking would probably be necessary in any case.

...MEET BUILDING CODES? – The degree to which the new use could meet building codes without extensive changes.

5% - the construction type and specific requirements of the different uses may make structural changes difficult.

... MEET EXISTING ZONING? – How well the new use would fit into the existing zoning.

2% - the existing zoning does not preclude many uses and zoning variances can be requested.

The matrix compares the refined list of building uses to the adaptive reuse criteria for each building. Uses which were highly compatible with the criteria were given a rating of "1" for that criterion, somewhat compatible uses were given a rating of "0.5" and non-compatible uses were given "0". These ratings were multiplied times the weighting percentages to give matrix scores. The scores were added up for each use to give a total matrix score for each use in each building section. (Figure E-14)

The matrix shows that some proposed uses are more suitable for the existing structure than others. Scores of over 70% indicate that the use is compatible and could be considered. Uses which "made the cut" are Single Tenant Retail, County Office, Athletic/Gymnastics Facility and Casino. Uses, which provide infeasible, are Multi-Tenant Retail, Multi-Tenant Office, School and Library.

Demolition, scoring only 10 points would require another independently completed EIS to become a feasible option.

The potential compatible uses are discussed further.

Single Tenant Retail: (97.5%):

The property contains a large enough footprint to accommodate a large anchor tenant, like a Target. The structural design of the space would accommodate this use. The existing truck dock and windows along Franklin Street are natural complements to this use. While the property has no on site parking, the potential exists to have package service to the existing loading dock or pull-up service at the Franklin Street entrance. The existing structure and mechanical systems can easily be retrofitted to the new use. While the store might not be a regional magnet, it would be a local magnet.

Casino- (97.5%):

This controversial option is also well suited to the site. The use in comparable in structural and occupant loads to the existing. The Franklin Street windows provide visibility at street level, while the existing window free 2nd floor restricts view outside a feature desired by Casino operators. Casino use would complement existing restaurants and hospitality businesses and would be a regional draw.

Athletic/Gymnastics Facility – (75%):

Again, this use is compatible to the previous use in terms of structural and mechanical loads. The high second floor would allow a variety of sports uses including gymnastics, tennis, soccer, basketball and climbing. The first floor is well suited to gymnastics or health club uses. Uses should be considered that complement rather than compete with the Buffalo Athletic Club. There is currently no gymnastics center in the City, though the sport is gaining in popularity. A use of this type would encourage and increase multi-generational use of Downtown.

County Office – (70%):

The county currently owns the facility and also leases a significant square footage of office space in area buildings. It may be fiscally advisable to vacate these spaces and use County-owned space. Renovation to the facility would be required and the 20 + foot exhibit hall is impractical for a single floor of office use. It is feasible that another level could be inserted. The impact of the county move should be carefully considered in terms of its impact on local real estate markets.

3.1 PROGRAM CRITERIA FOR SITE SELECTION

In order to analyze potential sites for a new or expanded convention center in Buffalo, several critical program criteria have been identified because they are particularly relevant to the ability of an identified site to support the project, as proposed. These criteria are not site-specific, but rather are critical to the efficient and effective layout and design of a state-of-the-art convention center. If these general criteria cannot be satisfied, then it does not matter how good a particular location is.

Not only are these criteria used to characterize and evaluate potential sites, they should also be followed in the subsequent detailed design of a convention center facility to be undertaken once the SEQR process is complete and a site has been selected by Erie County, the Lead Agency.

The following criteria were developed by HNTB, Inc, an internationally recognized firm specializing in convention center planning, design, construction, and operation (HNTB 2000):

- **Loading Docks**. For a convention center with 125,000 square feet of exhibition space, the industry standard would require 12 to 13 loading docks for full-size (i.e., 65 feet long) semi-tractor trailers, based on a criteria of one dock for each 10,000 square feet of exhibit space. It is recommended that the one or two of these docks be designated to accommodate food service deliveries and trash operations. The long-term plans for recycling policy and programs in the County should also be considered in evaluating the total number of docks to be accommodated.

- **Truck Operations**. Transportation of exhibitions to and from a building of this size requires careful planning and coordination of truck access. Not all deliveries can take place at the same time, therefore an on- or off-site truck staging area must be made available for trucks before they are allowed to access the loading dock position they

are assigned. All paths of travel between the staging areas, surrounding streets, and the loading docks will need to be designed to accommodate the large rigs that service the exhibition industry, therefore horizontal and vertical geometry will be important planning considerations.

- **Public Vehicular Circulation**. Even with a nearby headquarters hotel, the convention center will need to be supported by hotels that are not necessarily within walking distance. Therefore the successful site must be able to accommodate safe and functional front-of-house bus, shuttle, and taxi operations to serve attendees.

- **Multiple Events**. Given the market focus of this project, it is anticipated that there will be numerous occasions when more than one event is taking place in the building. Therefore the viable site(s) should be able to support a building organization that can accommodate multiple building entries and a distribution of the functional spaces that allows more than one event in the building at the same time.

- **Prefunction Space**. The lobbies, registration, and circulation space serve as the critical connective tissue of the center. It is in these spaces that natural light and visibility to and from the building can best be achieved. The successful site(s) will be able to accommodate a building organization whose prefunction space can best take advantage of views to and from the building. Prefunction space must be adequately sized to support queuing, circulation, receptions, and other types of these uses.

- **Exhibition Hall**. The entire exhibition hall must be on a single level, in a rectangular shape, and ideally dimensioned on a 30-foot module. Its clear height should be 30 feet to the underside of structure/lighting/HVAC. Future expansion exhibition area should be on the same level as the original hall. A 350-pound live load will have to be accommodated.

- **Ballroom**. The ballroom must be column-free, and of generous vertical height so that large-scale audio-visual productions can be made. Access to the ballroom should take into consideration that it would be used at times for community events when the rest of the building is not leased or in use. Proximity of the ballroom to the main production kitchen and properly-sized service corridors on its perimeter are critical to food service operations. The number of divisions of the ballroom into smaller meeting areas is a market-driven consideration, but at least three subdivisions using movable partitions should be planned.

- **Meeting Rooms**. Meeting rooms should be located to be easily accessible from the exhibition hall and ballroom. Groupings should also allow for multiple simultaneous events that do not conflict with each other. A variety of sizes of meeting rooms should make up the program area of 25,000 to 30,000 square feet; a nominal sizing could be groupings of 1,800-sqaure feet spaces that are combined using movable partitions into groups of two and three to provide flexibility. All meeting rooms should be proportioned not to exceed a 2:1 length-to-width ratio and ceiling heights should be a minimum of 16 feet to allow for audio-visual presentations.

- **Structural Considerations – Exhibition Hall**. The convention center will have a variety of types of spaces whose vertical and horizontal dimensions demand varying structural spanning solutions. It is desirable that the exhibition hall be column-free, but this is not imperative. In no case should any columns be closer than 90 feet apart. The key advantage of a column-free exhibition hall is not for exhibits but for its flexible use as a multi-media presentation environment where sight lines to a stage are critical.

- **Structural Considerations – Ballroom**. It is essential that the ballroom be column-free because of the constant use of this space as a presentation environment. This means that the viable site(s) should be able to accommodate a diagram with a

column-free footprint for the ballroom of approximately 150 feet by 200 feet to achieve a 30,000-square feet open footprint.

- **Food Service Operations**. The main kitchen must be well-placed with respect to the ballroom and meeting rooms, food service loading docks, and back-of-house service corridors. It should also be possible to provide food service to the exhibition hall when it is used for extra-large banquets and other events.

- **Technology**. The entire building should be wired with a fiber-optic backbone to provide high-speed internet service to the exhibition hall floor, the ballroom, all meeting rooms, prefunction space, as well as key support spaces such as the kitchen, administrative suite, etc. Roof space should be reserved for satellite dish positions for down- and up-link capabilities, with consideration given to line-of-sight access to the appropriate satellite positions. Provisions for wireless communications should be made, but this technology will not replace the need to hard-wire the facility.

- **Open Space**. There is no specific amount of open space that the building program will typically require, but it is expected that the project will require some in order to solve urban design goals, setback requirements, and vehicular circulation solutions. Some open space, possibility in the form of decks or balconies adjacent to the building's prefunction areas may be architectural in nature.

- **Expansion**. The previously completed market study described an expansion scenario for the project that ranged from 75,000 to 150,000 square feet of additional space. It is critical that the selected site be able to accommodate future expansion. The history of the convention center industry has shown that most buildings have expanded from original construction dimensions. Projects that were intelligently planned with expansion in mind were able to do so in a functional and cost-effective manner. At a minimum, an overall site plan showing the expansion strategy must be made a part of the initial design commission for the project.

- **Parking**. It is important that on-site parking be provided, particularly because of the need to market the facility during winter months. On-site parking is typically a major factor in selection of a convention center to hold an event because of the convenience it provides and the ability of attendees to park and enter/exit the facility without being exposed to inclement weather. This is, in fact, one of the main drawbacks to marketing the existing Buffalo Convention Center. According to Convention Center management, approximately 24 events (12 consumer shows and 12 trade shows) have declined to select Buffalo due to the unavailability of on-site parking (Florczak 2000).

Occupancy

Occupancy of the convention center is driven by several factors: 1) marketing success in attracting events, including such factors as available hotel rooms; 2) an individual event's success in attracting attendees; 3) size constraints of the building and its rooms as determined by code and fire marshal regulations.

For planning purposes, potential occupancy of the key leaseable spaces can be calculated as shown in Table 3-1.

Table 3-1 Key Leaseable Spaces

	Program Area (sf)	Reception 7 sf/person	Theater Seating 10 sf/person	Dining/ Banquet 15 sf/person	Exhibit 25 sf/person
Exhibition Hall	125,000	N/A	12,500	8,333	5,000
Ballroom	30,000	4,286	3,000	2,000	1,200
Meeting Rooms	30,000	4,286	3,000	2,000	N/A

Source: HNTB, 2000.

It should be stressed that these are theoretical maximums, especially with respect to the exhibition hall. It is unlikely, for instance, that the entire hall would be used for a single large plenary meeting or banquet. A more plausible scenario is that, for instance, 50,000 square feet of the exhibition hall would be used for an occasional banquet that could not otherwise fit in the ballroom. Determining the total occupancy of the building should not be calculated by simple addition of the figures above because it is highly unlikely that all of the leaseable spaces would be occupied to maximum density at the same time. The ultimate allowable maximum occupancy of each space in the convention center is subject to final design and review by code and fire department officials.

Mohawk Site

As part of the process of collecting and reviewing data concerning the candidate sites for the convention center project, the EIS evaluation team reviewed the Site Selection Study prepared in 1998 for the Erie County Department of Environment and Planning. This report concluded that the preferred site for the project was the Mohawk site along Washington Street between Broadway and Huron Streets, with air-rights construction above Ellicott Street. The EIS team agrees with the conclusion that this area in downtown Buffalo would be a good location for the project, but recommends that the Mohawk site be enlarged to properly accommodate the size of convention center as currently defined.

Based on the proposed program for the project, convention center industry standards, and the particular constrains and opportunities of this site, there are several key issues that should be identified in further consideration of this site's potential for the project. While the concept diagrams presented in the 1998 site selection report do not represent specific design proposals, the following issues will have to be addressed if planning for this project were to move forward at this location. Each of the comments below will have an affect on the horizontal dimensioning of the project , and therefore on the ability of this site to support the proposed building program.

Urban Design Context

The positioning of the convention center's front-of-house lobby and prefunction area along Washington Street is basically a sound strategy. However, with the main floor of the building raised in order to clear Ellicott Street, it will be particularly difficult to

achieve an active street edge at grade. Including retail within the convention center is not likely to prove viable because of access and visibility issues. Activation of the Washington edge of the project will remain an important design objective.

The center should have as strong a sense of presence from Main Street as possible. The location of the Ballroom at the Public Square where diagonal Genesee and east-west Huron Streets intersect helps to achieve this objective. However, the study team suggests that the Genesee diagonal be reflected in the design of the Public Square, rather then letting an orthogonal character dominant. Consideration should be given to the possibility of a major entrance along the Mohawk Street axis.

Pick-up and Drop Off Area

With Washington Street being a one-way street in the southerly direction, the convention center curb ends up being on the left side of vehicles stopping at the building's face. This is potentially dangerous, and is not recommended. Further consideration can be given to using Broadway for pick-up and drop-off functions that should use the right-hand curb.

Ballroom

The Ballroom as diagrammed is too long and thin in its proportions. Given the frequency of audio-visual presentations that will take place in this space, the length to width ration should not exceed 2:1.

Ballroom Service Corridor

While placement of the Ballroom directly adjacent to the Exhibition Hall may offer an opportunity to use the Ballroom for overflow exhibition use, we believe this is not a desirable option, for several reasons. First, acoustic isolation of these spaces is critical so that the Ballroom can be used for functions when there are noise generators ion the Exhibition Hall, either because of an active event, or exhibition set-up tear down functions. Second, the Ballroom requires a service corridor along its long dimension in

order to properly support food service functions in the space, wither in its open or divided mode.

Meeting Rooms

The 1998 plan and section diagrams reviewed by the EIS study team do not indicate where the 25,000 – 30,000 sf of meeting space would be located. This portion of the program, along with the supporting service and support areas are large enough to directly affect the assessment of whether the project can fit on this site.

Future Expansion

The building program resulting from the marketing study indicated a range of 75,000 – 150,000 sf of additional space as a planning objective. The Test Fit diagram presented in the 1998 study identifies the low end of that range, 75,000 sf, along the southern end of the site at Broadway. Because of the diagonal geometry of the street grid, the effective size of an expansion may be less than that indicated. Additionally, the site geometry makes it difficult to have the service court and loading docks service this expansion area.

Prefunction Space

The width of prefunction space shown on the study's plan diagram is inadequate, especially along the north face of the Ballroom. For a Ballroom of 30,000 sf there should be approximately 10,000 sf of prefunction space whose dimensions adequately support the flow and queuing conditions of event attendees. A Ballroom of this size can support a banquet of up to 2,000 people, and around 3,000 seated in theater style for a plenary meeting or presentation.

The Exhibition Hall's prefunction area on the exhibition hall level should be wider than that on the street level. Achieving a volumetric atrium with an upper level setback as shown on the building section diagram conflicts with the programmatic requirement for prefunction space.

Service and Support Space

The diagrams presented in the site selection study do not properly indicate service and support areas. For an air-rights convention center with its main occupied areas above the street level, these will require an even greater area than in an at-grade facility. Storage, shops, administration, exit stairways, ventilation shafts, etc. will be part of these types of spaces.

Conclusion

In considering the cumulative effect of the comments above, the EIS team believes that the site defined to date as the Mohawk site is too narrow in the east/west dimension to properly accommodate this building program in a functional manner. Therefore, it is recommended that if the center is to be located here its eastern boundary be established at Oak Street. Widening the site this ½ block width will provide the opportunity to solve the challenges cited above, while at the same time providing for more successful long-term expansion strategies.

Waterfront Site

The site near the lakefront, east of the HSBC Bank, may at first glance be appealing as a potential convention center site since buildings do not occupy it. However, this site is significantly deficient because of its distance from hotels and other visitor amenities. The site feels isolated, and in the study team's opinion it would be difficult to successfully market a convention center aimed at meetings, trade shows and conventions at this location. Additionally, the site is currently used for HSBC employee parking and for trucks serving the Buffalo News – both critical uses for these significant businesses. The HSBC Bank regards this site as a critical expansion site for its operations in Buffalo. Compared to the Mohawk site, this location has inferior mass transit and highway access.

Expansion of the Existing Buffalo Convention Center

The EIS team evaluated another alternative for locating the project in downtown Buffalo: expansion and renovation of the existing Buffalo Convention Center. The alternative considered involved the eastward expansion of the existing center from Pearl Street to Main Street between Mohawk and Court Streets. In principle, this approach offered several advantages, as follows:

- re-use of existing facilities and public resources
- an improved opportunity to connect to the Hyatt Hotel
- improved connection of the project to Main Street
- the southeast corner of the site addresses Lafayette Square
- avoidance of historic preservation constraints
- eliminates need to develop alternative uses of the Center

Despite the good general location of the project in this portion of downtown and these specific advantages, we believe that an expansion of the existing center cannot satisfy the marketing and program objectives that have been identified to date. The most significant problems concern the nature of the exhibition hall and truck access to it.

Exhibit Hall

Additional exhibition space built above Pearl Street will have to be higher than the existing hall in order to allow traffic to continue to flow along Pearl Street. Therefore, such an approach would result in division of existing exhibition space at the +XX' level from new exhibition space at the +YY' upper level.

While it may be possible to design this alternative so that the upper level exhibition area overlooks the lower exhibition level, thereby achieving some visual continuity, the split level exhibition hall is not desirable, and would actually be a distinctly negative liability in Buffalo's attempt to compete with other cities for convention and exhibition business.

The split-level exhibit hall will not easily be marketable to single events that want to use the whole center at once. There would always be a perception of inequality among the two portions of the hall, and selling exhibit space to individual exhibitors would be more difficult than if it were at a single level. Additionally, the site does not successfully accommodate a building plan with multiple entries serving each of the two exhibition levels, so the accommodation of two simultaneous events in the two-level exhibition hall does not work.

Truck Docks

An expansion of the existing center to the east would involve the complete removal of the loading docks from their existing location along the Pearl Street edge of the existing site. The most logical new location for docks would be along the north side of the site at Mohawk Street since access from Court Street is more constrained. However, with the split level exhibit hall, truck access to the loading dock would have to be at two levels, and there is not adequate horizontal dimension to accommodate both the necessary ramps and truck turn-around areas. The truck access problem is further exacerbated by the requirement to provide direct drive-on truck access to both levels of the exhibition floor; this does not appear possible given the geometrical constraints of providing for semi-tractor trailer truck operations.

Conclusion

Since it appears impossible to expand the existing center in a manner that results in a single-level exhibition hall served by approximately twelve truck docks and drive-on capability, this alternative is not recommended for consideration as a location for the convention center project.

Mitigation

The Project Team completed a complete Phase 1A Cultural Resources Investigation for the proposed Convention Center Alternative Sites. This report is attached to the Draft EIS as Appendix B. As a part of this investigation, a series of mitigation measures were identified should construction of the Convention Center occur on any of the three sites identified as part of this EIS. These measures include archaeological analysis consisting of mechanical testing through the excavation of pits through the use of a backhoe, architectural documentation through the preparation of Historic American Building Survey (HABS) and Historic American Engineering Record (HAER) drawings and eventual site-specific design guideline development for projects on each of the three sites. Mitigations will be discussed on a site-by-site basis.

Mohawk Site

Prehistoric Resources

Extensive prior disturbance and urban development have destroyed any potential intact prehistoric remains. Therefore, no specific plan is proposed to identify buried prehistoric site deposits.

Buried Historic Resources

The Phase 1A survey has identified that there is a moderate to high likelihood of the existence of buried historic cultural deposits on the Mohawk Site. These deposits may contain structural remains, historic middens and artifacts. Methods for undertaking investigation of these sites as part of Phase 1B analysis are outlined in Appendix B.

Built Historic Resources

The Mohawk site is the most architecturally sensitive of the three site options. Of the 46 structures identified on the Mohawk Site, the Phase 1A survey identified 7 properties

potentially eligible for inclusion on the National Register of Historic Paces (NRHP), with one of these properties potentially eligible as a contributing component of an existing on Main Street in the National Register Eligible (NRE) 500 Block Historic District. A site map identifying these structures is included here as Figure E-15.

These seven structures are spread throughout the site with five structures to the north of Mohawk Street and two structures to the south. To ensure the historic preservation of these seven buildings, the proposed siting of and/or design of the facility on the Mohawk Street site could be reconsidered to determine if any or all of the significant structures can be saved in whole or in part. The two schemes identified by the project team for this site both leave a portion of the site south of Mohawk vacant for future development. In Scheme 1 for this site two of the eligible buildings, 465 Washington Street and 36 Broadway, could be preserved for inclusion in the proposed future development. In Scheme 2 of this site, only 36 Broadway could be preserved for inclusion in future development. One of the eligible properties, 504 Washington Street (which is also contributing to the NRE 500 Block District) is not directly on the site. This property is located across the street from the proposed site and would not be demolished as a part of the Convention Center Construction.

As stated in this Appendix, the site's contributing structures are insufficient in number to approximate the urban history and context of the area. The context of these blocks no longer relates in density and scale to the historical urban density, and because of the missing, demolished structures, the existing structures do not present a dense or homogeneous unbroken silhouette or massing. However, the lack of a consistent whole does not necessarily justify destruction of the remaining parts. Since the buildings individually are representative of the historical development of this section of the city, an effort should be made to save them and incorporate them as much as possible into the design of the Convention Center. If this proves implausible, the lead agency should obtain an NRHP eligibility determination from the New York State Office of Parks, Recreation and Historic Preservation (SHPO) for all potentially eligible structures. Any

NRE structure proposed for demolition must be mitigated. There are six such structures directly on this site. Adequate architectural recording on measures as well as the level of documentation required for any eligible structures must be established with SHPO consultation. Mitigation measures may include HABS and HAER drawings, with recording work undertaken in concurrence with SHPO regulations. If it is deemed feasible, existing significant buildings may be relocated or reconstituted on a new site. Additionally, significant interior building elements and exterior building features may be removed, at the expense of the eventual owner, and delivered to either the Buffalo and Erie County Historical Society, the City of Buffalo Architectural Salvage Program, or other community entity as identified as identified and approved by the lead agency. This work should occur after the ultimate completion of HABS/HAER drawings, their approval by SHPO and delivery to both SHPO and Erie County. The subsequent disbursing of these record drawings will be at the discretion of Erie County.

In addition to the completion of HABS/HAER drawings, new construction should follow guidelines appropriate for this district. These guidelines are intended to mitigate the concerns relating to Urban Design and Historic Preservation issues brought out in this Appendix:

- Setting Proximities and Site Characteristics;
- Scale and Design Relationship to Existing Architecture;
- Streetscape;
- Views & Vistas;
- Activity Centers;
- Pedestrian and Vehicular Approach Corridors (Links, Edges & Barriers); and
- Opportunities.

Such guidelines should include the following, and are subject to the review and approval of the lead agency:

1. New construction shall be a product of its time, place and use. The new Convention Center should not be designed to create a false sense of historical

development or create a conjectural reality. Though a product of this new time, the building should be compatible with existing adjacent construction in terms of scale, massing and materials. It should reinforce a sense of history and tradition in the downtown area.

2. Building Scale/Massing: There is a marked difference in scale between adjacent properties near Lafayette Square and Fountain Plaza versus those properties further north in the 500 block of Main Street. (See Fig E-16) New construction on the Mohawk site should take into account this scale. Edges of the building should be stepped or varied to reflect the scale of nearby buildings.

3. Pedestrian scale: One of the major criticisms of the existing Convention Center is its relationship to the pedestrian on the street. The new Convention Center should create an appropriate and comfortable pedestrian environment on all street faces (including the underpass portions). Building bay configurations that reflect the traditional 40-foot wide lot spacing and fenestration should complement the streetscape.

4. Materials and Detailing: Materials should complement those found on adjacent buildings. Stone, glazed terra cotta, brick and glass should be favored in lieu of metal panel, "Dry-vit" or stucco.

The mere specification of material for a new Convention Center will not, by default, connect it to its context. The scale and texture of adjacent buildings like the Niagara Mohawk Building, Buffalo Savings Bank, the Rand Building, Hotel Lafayette and Liberty Bank is primarily achieved through surface treatment of materials, either by articulation of changes in materials or the ornamental use of a specific material. While articulation of circulation and structural elements is considered a more "modern" and "honest" method of

design, the resulting scale and texture is inherently at odds with the surface treatment of buildings adjacent to this site. This constitutes an adverse impact on the adjacent structures, since the scale of the new Center will overpower the scale of the adjacent historic structures. Providing close attention to surface material and detail in those sections of the Center that are adjacent to historic structures and vistas can mitigate this concern. This concern can be summarized as an "edge condition", which involves the careful detailing of those edges of the Convention Center that will be perceived by pedestrians in conjunction with those historic structures or vistas.

5. Pedestrian environment: By their very nature, convention centers required controlled access, yet significant amounts of egress. Entrances should be clearly marked and readily visible to the pedestrian users. Conflicting and confusing visual cues about entrance locations should be avoided.

6. Site Boundaries: The new Convention Center on this Mohawk site should make every attempt to bridge the divide between the near east side and the Central Business District. More recent interventions like the Elm/Oak Arterial and urban renewal demolitions/parking lot construction have created a "Berlin Wall" affect between these two portions of the city. Community polarization along ethnic lines that have also occurred at this edge have further exacerbated this feeling of division. New construction of housing and commercial development in the east side neighborhoods has begun to knit the community back together philosophically. A new Convention Center at this location should make every attempt to knit the community back together physically.

7. Approach/Linkage: Views and vistas along the street lines and connections to urban nodes have always been important in both the Joseph Ellicott and Olmsted street plans in the City of Buffalo. The new Convention Center

should be approachable from many directions, with attention being paid to axes of the radial streets and public spaces as well as the connections made to existing nodes. Pedestrians and auto patrons alike will approach the building from many directions and all views of the building can be considered a "front" approach. The driving public approaching the building from the Elm/Oak arterial will invariably be viewing the utilitarian "servant spaces", yet these facades should be designed to greet the public as a primary façade would. Attempts should be made to conceal the service areas from public view so that each façade addresses the community in a responsive way.

Significant historic landmarks and public spaces surround the Mohawk Site. New construction should relate well to, and not conflict with, surrounding landmarks including the Niagara Mohawk Building, Buffalo Savings Bank (former Goldome), Lafayette Square, Hotel Lafayette, Roosevelt and Fountain Plazas and the Public Library. The building should complement these landmarks when being viewed from them as well as when viewing them.

The new convention center should provide an actual pedestrian link to Main Street, Lafayette Square and Roosevelt Plaza to integrate the building with its community and provide maximum benefit to the surrounding businesses.

8. The Underpass: Attention should be given to the Ellicott Street underpass. Like the Central Library one block to the south, the new convention center is proposed to span across one or more city streets. The 900-foot long "tunnel" thus created must work to prevent both real and perceived security problems for motorists and pedestrians alike, lighting problems inherent with creating a tunnel to be used by pedestrians and adverse environmental conditions like wind tunnels. The underpass should create visual "distractions" which mitigate its length and darkness, enhancing the pedestrian and motor experience without creating hidden corners and other security concerns.

9. Reference Historic Street Patterns: Existing streets demolished as a part of the construction should be referenced in some way through the plan, façade or parti. Hersee and Blossom Alleys are the only alleys that remain in the historic downtown neighborhood. These alleys, as well as through streets, should be acknowledged as part of the new building. As an example, this was handled successfully in the elimination of Genesee Street for the Hyatt Hotel, and less successfully where Genesee Street was eliminated for the existing Convention Center.

10. Weather conditions: Projects throughout downtown have created adverse wind conditions, historically resulting in the seasonal installation of ropes and railings to assist pedestrians. The project's penultimate design should be wind tested to determine the conditions to be present at the plaza area, under the underpass, and on all streets adjacent to the structure to assure the microclimate created is appropriate for pedestrian use. These tests should be undertaken and evaluated prior to the completion of the ultimate design solution.

11. Creation of Public/Civic Space: The project should create an inviting public space for people to convene. Waiting/standee spaces in and outside the project should be comfortable, welcoming and impressive civic space inviting interaction. Opportunities for public art projects should be provided. This public space should provide a strong visual connection to Main Street and the Light Rail Rapid Transit Line.

12. Traffic Pattern Clarity: Traffic patterns in Downtown Buffalo are confusing to visitors and residents alike. Orientation of the building should not create a further traffic boondoggle. Access to the site by visitors should be clear, and

travel around the site by other downtown users should be equally clear. Creation of dead-end streets or one-way streets butting nose to nose should be avoided.

13. Access to Light Rail Rapid Transit: The project should provide strong connection to the existing Main Street Light Rail Rapid Transit Line. This Transit line serves as a people-mover to help mitigate parking and vehicular congestion in the Convention Center area by allowing the use of other downtown parking or Park-and-Ride facilities, as well as encourage patron usage of downtown restaurants, businesses and entertainment venues.

MOHAWK SITE CERTIFIED ELIGIBLE BUILDINGS

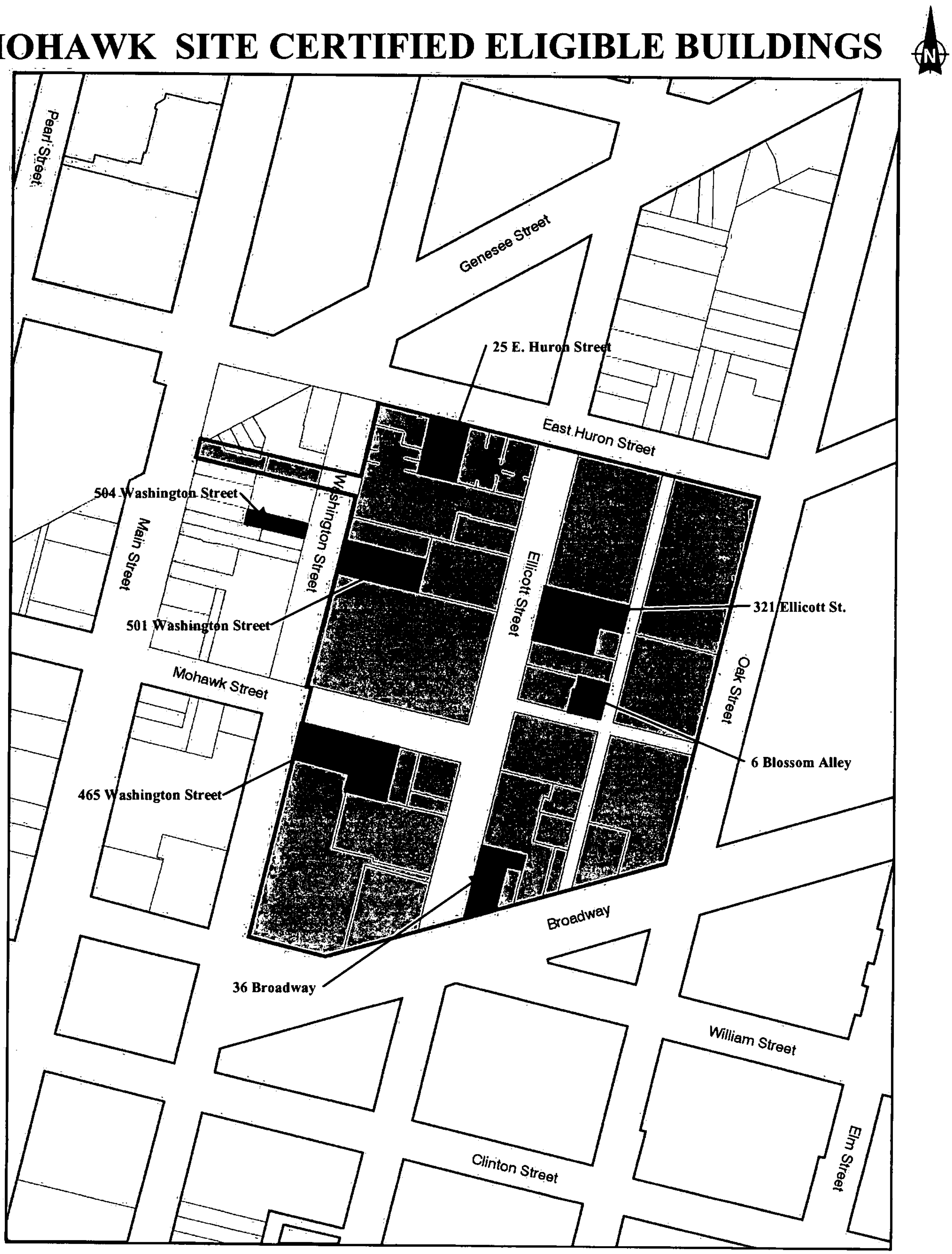
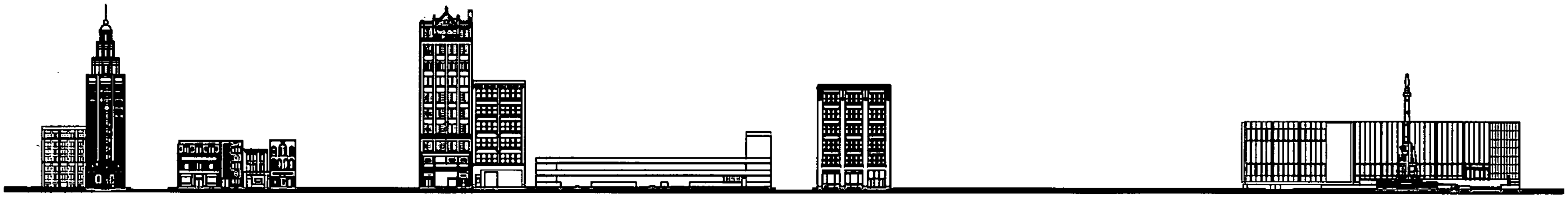
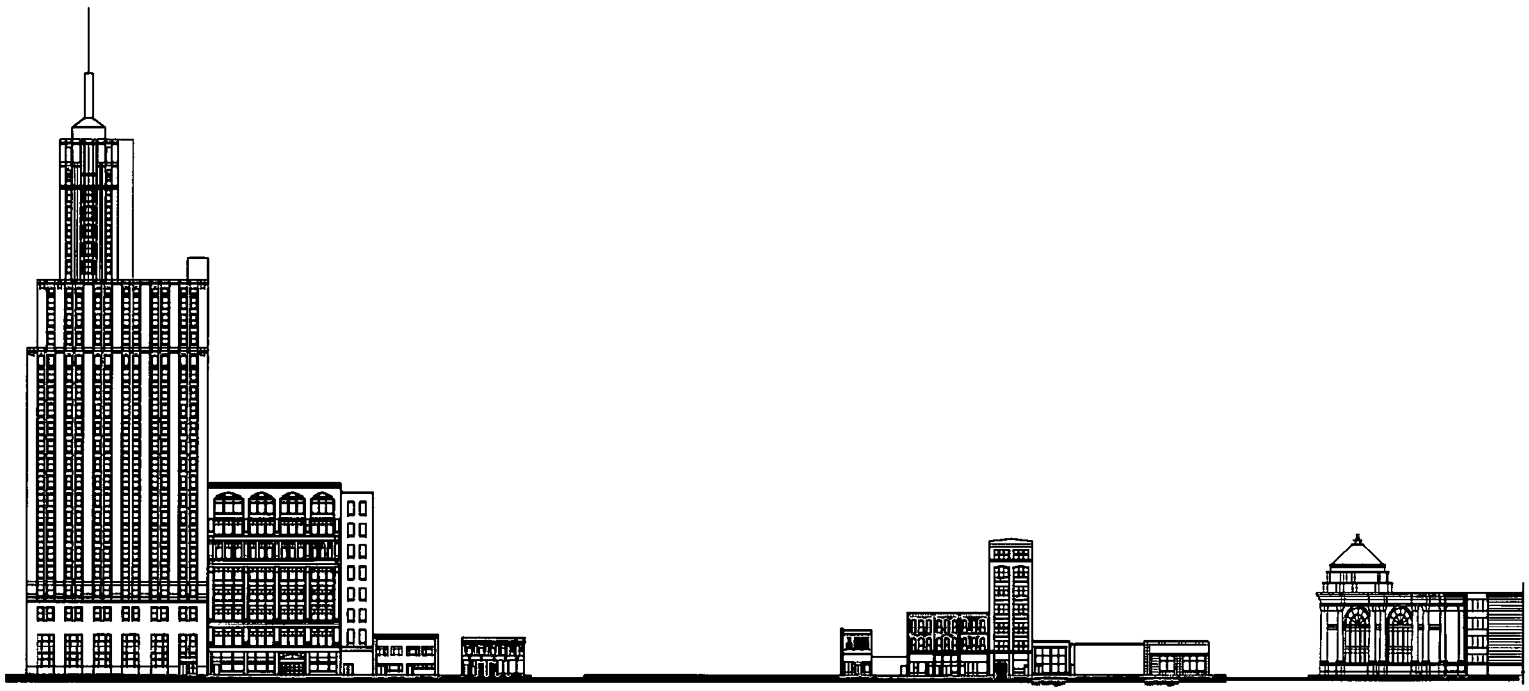


Figure E-15



WEST SIDE OF WASHINGTON STREET



EAST SIDE OF WASHINGTON STREET

WASHINGTON STREETSCAPES

Figure E-16

Waterfront Site

Prehistoric Resources

Extensive prior disturbance and urban development have destroyed any potential intact prehistoric remains. Therefore, no specific plan is proposed to identify buried prehistoric site deposits.

Buried Historic Resources

The Phase 1A survey has identified that there is a high likelihood of the existence of buried historic cultural deposits on the Waterfront Site. Though no structures remain no the site, having previously been demolished to create an asphalt parking lot, it is unlikely that the construction of this parking lot seriously impacted all previously existing buried historic resources at the site. These buried deposits may contain structural remains, historic middens and artifacts. Methods for undertaking investigation of these sites as part of Phase 1B analysis are outlined in Appendix B.

Built Historic Resources

Since there are no structures on the Waterfront site, there is not further architectural work required to mitigate demolition. Still, new construction of a Convention Center on the Waterfront site should follow guidelines appropriate for this district. These guidelines are intended to mitigate the concerns relating to Urban Design and Historic Preservation issues brought out in this Appendix:

- Setting Proximities and Site Characteristics;
- Scale and Design Relationship to Existing Architecture;
- Streetscape;
- Views & Vistas;
- Activity Centers;
- Pedestrian and Vehicular Approach Corridors (Links, Edges & Barriers); and
- Opportunities.

Such guidelines should include the following, and are subject to the review and approval of the lead agency:

1. New construction shall be a product of its time, place and use. The new Convention Center should not be designed to create a false sense of historical development or create a conjectural reality. Though a product of this new time, the building should be compatible with existing adjacent construction in terms of scale, massing and materials. It should reinforce a sense of history and tradition in the downtown area.

2. Building Scale/Massing: There is a marked difference in scale between adjacent properties in the Cobblestone Historic District and the surrounding Arena, Business District and industrial sites like the Buffalo News facility and nearby grain elevators. New construction on the Waterfront site should take into account this scale. While the large buildings surrounding the site can support Convention Center edge conditions of a larger scale, the facility should greet at a more intimate scale the Cobblestone Historic District to the south. These buildings, generally of one or two-story construction are indicative of the industrial wharf area in Buffalo's early history. Edges of the building should be stepped or varied to reflect the scale of nearby buildings.

3. Pedestrian scale: One of the major criticisms of the existing Convention Center is its relationship to the pedestrian on the street. The new Convention Center should create an appropriate and comfortable pedestrian environment on all street faces. This facility is creating a streetscape where none exists for much of its length, due to the fact that much of the site is bounded by parking lots or highway overpasses. Building bay configurations and fenestration should work to create the streetscape.

4. Materials and Detailing: Materials should complement those found on adjacent buildings. Stone, brick and glass should be favored in lieu of glazed terra cotta, metal panel, "Dry-vit" or stucco.

The mere specification of material for a new Convention Center will not, by default, connect it to its context. The scale and texture of adjacent buildings like the Indiana Street Warehouse (70 Indiana Street @ Perry),Peerless Warehouse (79-83 Perry Street), Queen City Engineering (49-53 Illinois Street) and the former Blacksmith shop at 118-129 South Park Avenue are utilitarian in nature. The buildings are generally brick with cast iron or brick detailing. Windows are multipaned, doorways are generous and form typically follows function. These vernacular buildings are known for a beauty coming from their sincerity of materials, truth in form and intimate scale. Architects have the latitude because of the surrounding industrial and contemporary buildings to allow structure to play a key role in design development. Monumental and utilitarian elements on service areas of the building are not out of character with the surrounding neighborhood.

5. Pedestrian environment: By their very nature, convention centers require controlled access, yet significant amounts of egress. Entrances should be clearly marked and readily visible to the pedestrian users. Conflicting and confusing visual cues about entrance locations should be avoided.

6. Site Boundaries: The new Convention Center on the Waterfront site is effectively isolated from the rest of the city, bounded by the HSBC Building, the elevated Route 190, the Skyway, the Amtrak rail line and the Buffalo River. Though the area is isolated, it is home to the HSBC Arena, the State Office Building, the Navel and Serviceman's Park, Inner Harbor development and the vacant Memorial Auditorium. Access to the site is by car, typically from the north, or via MetroRail, again from the north. The scheme presented for this site places the main entry door on the south side of the building. The

north service side of the building should be properly screened from approaching visitors who are forced to approach the building from what is essentially the rear. Design features on the Convention Center should draw the visitor around the building to the two approach routes, as they are not readily visible upon exiting the main doors of the facility, as the facility itself will not be readily visible when arriving at the MetroRail platform. Encouraging this connection will aid patrons who are required to use the MetroRail to access the building because they are staying at hotels elsewhere in the Downtown, aid in alleviating traffic and parking congestion by encouraging use of other downtown parking lots or Park-and-Ride locations, and promote interaction with downtown businesses and restaurants which are perceived to be far away.

7. Approach/Linkage: View of the facility is limited at street level to views from within the isolated lower Downtown area. The project will have a unique view shed from above, as it will be viewed from elevated motorways. Attempts should be made to conceal the service areas from public view so that each façade addresses the community in a responsive way.

   With the upcoming completion of the new Inner Harbor development, a project at this site would create another public investment in an area ripe for additional development. The project should complement and connect to this ongoing development to encourage public participation in this unique public space.

8. Weather conditions: Projects throughout downtown have created adverse wind conditions, historically resulting in the seasonal installation of ropes and railings to assist pedestrians. This project's location immediately adjacent to the lakefront will further exacerbate these conditions. The project's penultimate design should be wind tested to determine the conditions to be

present at the plaza area and on all streets adjacent to the structure to assure the microclimate created is appropriate for pedestrian use. These tests should be undertaken and evaluated prior to the completion of the ultimate design solution.

9. Creation of Public/Civic Space: The project should create an inviting public space for people to convene. Waiting/standee spaces in and outside the project should be comfortable, welcoming and impressive civic space inviting interaction. Opportunities for public art projects should be provided. This public space should provide a strong visual connection to Main Street and the Light Rail Rapid Transit Line.

10. Traffic Pattern Clarity: Traffic patterns in Downtown Buffalo, and particularly at the foot of Main Street are confusing to visitors and residents alike. Orientation of the building should not create a further traffic boondoggle. Access to the site by visitors should be clear, and travel around the site by other downtown users should be equally clear. Creation of dead-end streets or one-way streets butting nose to nose should be avoided.

11. Access to Light Rail Rapid Transit: The project should provide strong connection to the existing Main Street Light Rail Rapid Transit Line. This Transit line serves as a people-mover to help mitigate parking and vehicular congestion in the Convention Center area by allowing the use of other downtown parking or Park-and-Ride facilities.

Existing Convention Center Site

Prehistoric Resources

Extensive prior disturbance and urban development have destroyed any potential intact prehistoric remains. Therefore, no specific plan is proposed to identify buried prehistoric site deposits.

Buried Historic Resources

The Phase 1A survey has identified that there is a moderate to high likelihood of the existence of buried historic cultural deposits on the Expanded Convention Center site east of Pearl Street, and little likelihood of remain on the existing Convention Center. The deposits, located primarily on and east of Pearl Street may contain structural remains, historic middens, artifacts and remains of an historic plank and log road. Methods for undertaking investigation of these sites as part of Phase 1B analysis are outlined in Appendix B.

Built Historic Resources

None of the seven properties located on the expansion site for the existing Convention Center are potentially eligible for the National Register. As such, no mitigations are proposed for their demolition. A site map identifying these structures is included here as Figure E-17.

Since there are no eligible structures on the Expanded Existing Convention Center site there is not further architectural work required to mitigate demolition. Still, expansion of the Convention Center on its present location should follow guidelines appropriate for this district. These guidelines are intended to mitigate the concerns relating to Urban Design and Historic Preservation issues brought out in this Appendix:

- Setting Proximities and Site Characteristics;
- Scale and Design Relationship to Existing Architecture;
- Streetscape;

- Views & Vistas;
- Activity Centers;
- Pedestrian and Vehicular Approach Corridors (Links, Edges & Barriers); and
- Opportunities.

Such guidelines should include the following, and are subject to the review and approval of the lead agency:

1. New construction shall be a product of its time, place and use. The new Convention Center should not be designed to create a false sense of historical development or create a conjectural reality. Though a product of this new time, the building should be compatible with existing adjacent construction in terms of scale, massing and materials. It should reinforce a sense of history and tradition in the downtown area.

2. Building Scale/Massing: The expanded Convention Center is located in a dense urban core surrounded by multi-story high rise and mid-rise buildings of early to mid-twentieth century vintage. It is appropriate for the expanded Convention Center to be of a grand scale, in keeping with the scale of its neighbors. Buildings like the Waldridge Building (45 Court Street), the State and Federal Court Houses, Statler Hotel, Liberty Bank and the Delaware North Building are all large in scale. As the building reaches to Main Street the surrounding buildings are increasingly larger, most in excess of 20 stories. Development of the scale necessary to accommodate the stacked plan on this site is appropriate.

3. Pedestrian scale: One of the major criticisms of the existing Convention Center is its relationship to the pedestrian on Franklin Street. The expanded Convention Center should create an appropriate and comfortable pedestrian environment on all street faces (including the underpass portions) and correct the community's concerns along the Franklin Street

face. Building bay configurations that reflect the neighboring lot spacing and fenestration should complement the streetscape.

4. Materials and Detailing: Materials should complement those found on adjacent buildings. Stone, glazed terra cotta, brick and glass should be favored in lieu of metal panel, "Dry-vit" or stucco.

The mere specification of material for a new Convention Center will not, by default, connect it to its context. The scale and texture of adjacent buildings like the L.L. Berger's Building, Buffalo Savings Bank, the Rand Building, Hotel Lafayette, Liberty Bank and the Court Houses is primarily achieved through surface treatment of materials, either by articulation of changes in materials or the ornamental use of a specific material. While articulation of circulation and structural elements is considered a more "modern" and "honest" method of design, the resulting scale and texture is inherently at odds with the surface treatment of most of the adjacent buildings. This constitutes an adverse impact on the adjacent structures, since the scale of the new Center will overpower the scale of the adjacent historic features. Providing close attention to surface material and detail in those sections of the Center that are adjacent to historic structures and vistas can mitigate this concern. This concern can be summarized as an "edge condition", which involves the careful detailing of those edges of the Convention Center that will be perceived by pedestrians in conjunction with those historic structures or vistas.

5. Pedestrian environment: By their very nature, convention centers required controlled access, yet significant amounts of egress. Entrances should be clearly marked and readily visible to the pedestrian users. Conflicting and confusing visual cues about entrance locations should be avoided. The expanded Center project must have interaction on all faces of the building,

namely Main, Court and Franklin Streets, to avoid the current conditions presently found on Pearl Street. Inoperable doors like those present on Court Street and confusing entrance patterns should be avoided.

6. Site Boundaries: Larger buildings bound the expanded Convention Center on all sides, effectively confining the site. The expanded building should address each of the surrounding buildings without degrading the street edge.

7. Approach/Linkage: Views and vistas along the street lines and connections to urban nodes have always been important in both the Joseph Ellicott and Olmsted street plans in the City of Buffalo. The expanded Convention Center will be approachable from many directions, with attention being paid to axes of the radial streets and public spaces as well as the connections made to existing nodes. Pedestrians and auto patrons alike will approach the building from many directions and all views of the building can be considered a primary approach. The driving public approaching the building from the Franklin or Pearl Street will invariably be viewing the utilitarian "servant spaces", yet these facades should be designed to greet the public as the "front door" would. Attempts should be made to conceal the service areas from public view so that each façade addresses the community, and the neighboring historic buildings in a responsive way.

Significant historic landmarks and public spaces surround the site including: Lafayette and Niagara Squares, Hotel Lafayette, Roosevelt and Fountain Plazas, the Public Library, Liberty Bank, the Waldridge Building, State and Federal Court Buildings, City Hall, L.L. Berger's department store and the Statler Hotel. The expanded Convention Center

should complement these landmarks when being viewed from them as well as when viewing them.

The expanded convention center should provide a direct pedestrian link to Main Street, Lafayette and Niagara Squares and Court Street to integrate the building with its community and provide maximum benefit to the surrounding businesses.

8. The Underpass: Attention should be given to the Pearl Street underpass. Like the Central Library two blocks to the east, the expanded convention center is proposed to span across one city street. The 500+-foot long "tunnel" created must work to prevent both real and perceived security problems for motorists and pedestrians alike, lighting problems inherent with creating a tunnel to be used by pedestrians and adverse environmental conditions like wind tunnels. The underpass should create visual "distractions" which mitigate its length and darkness, enhancing the pedestrian and motor experience without creating hidden corners and other security concerns.

9. Reference Historic Street Patterns: Existing streets patterns erased or diminished as a part of the construction should be referenced in some way through the plan, façade or parti. Genesee and Pearl Street should be acknowledged as part of the new building. As an example, this was handled successfully in the elimination of Genesee Street for the Hyatt Hotel, and less successfully where Genesee Street was eliminated for the existing Convention Center.

10. Weather conditions: Projects throughout downtown have created adverse wind conditions, historically resulting in the seasonal installation of ropes and railings to assist pedestrians. The project's penultimate design should

be wind tested to determine the conditions present at the plaza area, under the underpass, and on all streets adjacent to the structure to assure the microclimate created is appropriate for pedestrian use. These tests should be undertaken and evaluated prior to the completion of the ultimate design solution.

11. Creation of Public/Civic Space: The project should create an inviting public space for people to convene. Waiting/standee spaces in and outside the project should be comfortable, welcoming and impressive civic space inviting interaction. Opportunities for public art projects should be provided. This public space should provide a strong visual connection to Main Street and the Light Rail Rapid Transit Line.

12. Traffic Pattern Clarity: Traffic patterns in Downtown Buffalo are confusing to visitors and residents alike. Orientation of the building should not create a further traffic boondoggle. Access to the site by visitors should be clear, and travel around the site by other downtown users should be equally clear. Creation of dead-end streets or one-way streets butting nose to nose should be avoided.

13. Access to Light Rail Rapid Transit: The project should provide strong connection to the existing Main Street Light Rail Rapid Transit Line. This Transit line serves as a people-mover to help mitigate parking and vehicular congestion in the Convention Center area by allowing the use of other downtown parking or Park-and-Ride facilities.

EXISTING CONVENTION CENTER SITE DEMOLITION PLAN

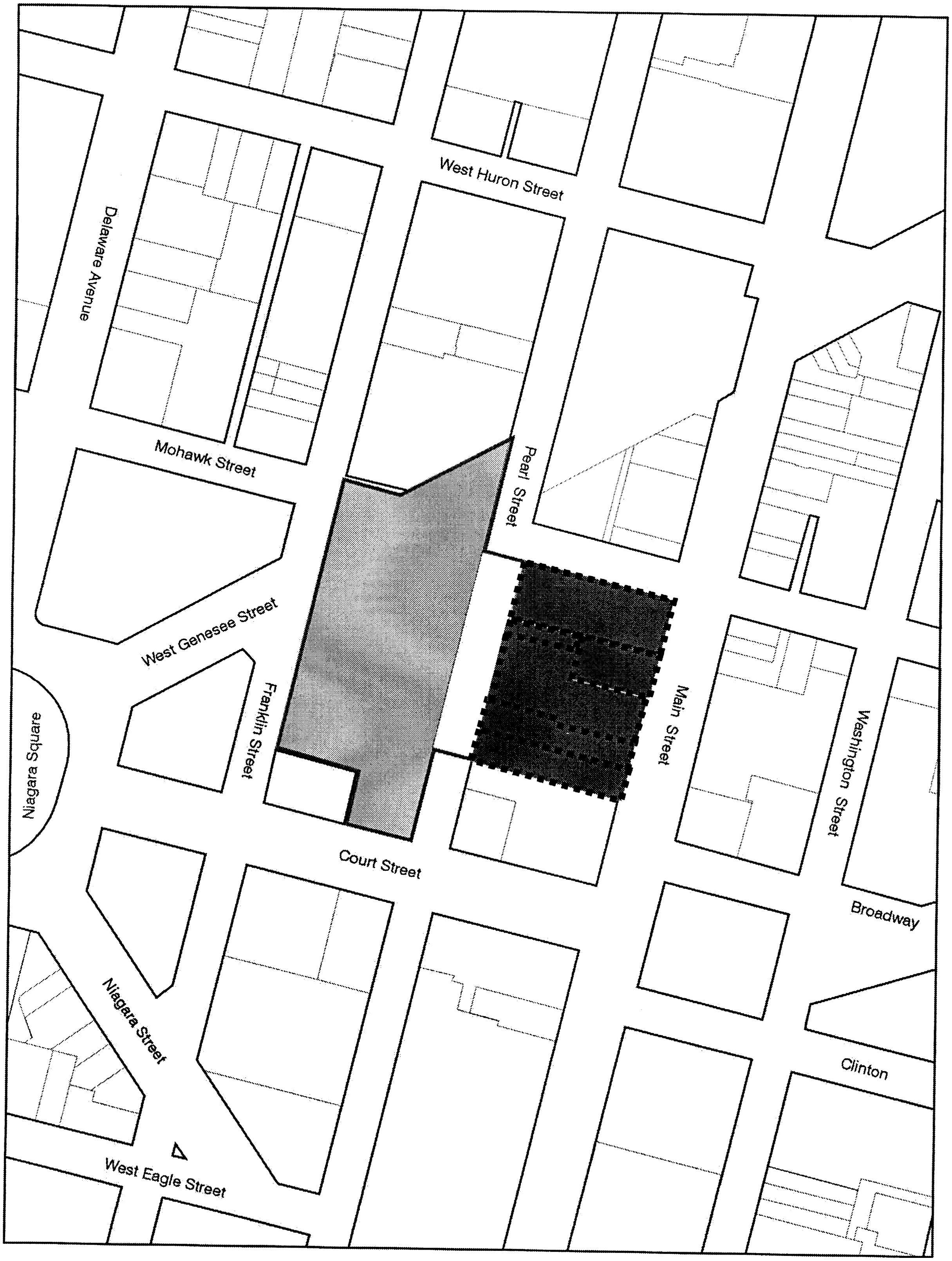


Figure E-17

F

Green Design Guidelines

F

Green Design Guidelines

Green design embraces design and construction practices that significantly reduce or eliminate the negative impact of buildings on the environment and the building's occupants. Green design applies environmental principles to all aspects of building design and construction including:

- Site planning;
- Water efficiency;
- Energy and atmosphere;
- Materials and resources; and
- Indoor environmental quality.

Green design is essentially good design. Green design has a myriad of benefits optimized by an integration of environmental, economic, and human health and safety benefits; integrated approach to site, energy, water, materials, and indoor environmental quality considerations; and a multi-disciplinary team approach to the design process.

The benefits of green design include:

- Environmental benefits – reduce impact on the environment;
- Economic benefits – improve the bottom line; and
- Health and safety benefits – enhance occupant comfort.

The U. S. Green Building Council has developed the Leadership in Energy and Environmental Design (LEED™) rating system for green buildings. It evaluates environmental performance from a

"whole building" perspective over a building's life cycle, providing a definitive standard for what constitutes a "green building". LEED™ is based on accepted energy and environmental principles and strikes a balance between known effective practices and emerging concepts.

LEED™ has been widely accepted in the U. S. as the standard for green building design. It is a voluntary, self-assessing system designed for rating new and existing commercial, institutional, and high-rise residential buildings. It is a feature-oriented system where credits are earned for satisfying each criteria. Different levels of green building certification, including certified, silver, gold, and platinum, are awarded based on the total credits earned.

Several states and municipalities across the country have developed their own green building standards adopting components from the LEED™ system. The New York State Department of Environmental Conservation (DEC) with assistance from the New York State Energy Research and Development Authority (NYSERDA) has completed a draft of the proposed New York State Green Building Tax Credit which can be downloaded at www.dec.state.ny.us/website/dar/ood/grnbldg.html.

The green design guidelines from LEED™ that would be applicable to the Buffalo convention center project, which will either be an adaptive reuse of an existing building or new construction on an urban/previously developed site, include:

Sustainable Sites

1. Erosion and Sedimentation Control: prevent the loss of soil during construction by storm water runoff and/or wind erosion, including protecting topsoil by stockpiling for reuse. Prevent sedimentation of storm sewers and provide air pollution control for dust and particulate matter.

2. Urban redevelopment: utilize high density urban sites for development.

3. Brownfield redevelopment: utilize sites classified as "brownfields" for development.

4. Alternative Transportation: select a site near public transit, provide suitable accommodations for cyclists, install alternative-fuel refueling station, and/or provide preferred parking for carpools and van pools.

5. Reduced Site Disturbance: for construction on a previously developed site, restore a portion of the open area by planting vegetation, and reduce the development footprint.

6. Stormwater Management: reduce rate and quantity of stormwater runoff due to impervious surfaces, or at least, ensure no net increase in stormwater runoff from existing conditions.

7. Landscape and Exterior Design to Reduce Heat Islands: reduce heat island effects (thermal gradient differences between developed and undeveloped areas) by employing techniques such as shading, using light-colored/high-albedo materials, installing high-reflectance and low emissivity roofing, and providing under-ground parking.

8. Light Pollution Control: design site lighting and select lighting styles and technologies to have a minimal impact off-site and minimal contribution to sky glow.

Water Efficiency

1. Water Efficient Landscaping: limit or eliminate the use of potable water for landscape irrigation.

2. Innovative Wastewater Technologies: reduce the use of municipally provided potable water for building sewage conveyance or treat wastewater on site.

3. Water Use Reduction: maximize water efficiency within the building by employing water conserving plumbing fixtures, high water efficiency equipment, and use alternatives to potable water for sewage transport and for HVAC makeup water.

Energy and Atmosphere

1. Building Systems Commissioning: provide for continuous commissioning of building systems to ensure they are operate as intended.

2. Minimum Energy Performance: design building to meet or exceed national/state building energy efficiency and performance requirements.

3. CFC Reduction in HVAC&R Equipment: zero use of CFC-based refrigerants if new building equipment is installed, or phaseout of CFCs if reusing existing equipment.

4. Optimize Energy Performance: design building to the highest level of energy performance possible by employing conservation measures, electromechanical energy efficiency technologies, passive heating and cooling strategies, and daylighting.

5. Renewable Energy: supply a portion of the building's total energy use from on site renewable energy technologies.

6. Elimination of HCFC's and Halons: install base building level HVAC and refrigeration equipment and fire suppression systems that do not contain HCFC's or Halon.

7. Measurement and Verification: provide for continuous metering of equipment to monitor building energy and water consumption.

8. Green Power: purchase power generated from renewable sources

Materials and Resources

1. Storage and Collection of Recyclables: provide an easily accessible area dedicated to the separation, collection and storage of materials for recycling.

2. Building Reuse: reuse large portions of existing structures during renovation/redevelopment.

3. Construction Waste Management: develop and implement a waste management plan to divert construction and demolition debris from landfill disposal.

4. Resource Reuse: use salvaged or refurbished materials.

5. Recycled Content: use building materials made with post-consumer recycled materials.

6. Local/Regional Materials: use building materials manufactured locally/regionally.

7. Rapidly Renewable Materials: use rapidly renewable building materials.

8. Certified Wood: use wood certified in accordance with the Forest Stewardship Council guidelines.

Indoor Environmental Quality

1. IAQ Performance: meet American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) standards for indoor air quality (IAQ).

2. Environmental Tobacco Smoke Control: provide designated smoking room or designate building as non-smoking.

3. Carbon Dioxide Monitoring: install carbon dioxide monitoring system.

4. Increase Ventilation Effectiveness: provide for the effective delivery and mixing of fresh air to building occupants to support their health, safety, and comfort.

5. Construction IAQ Management Plan: develop and implement an IAQ Management Plan for the construction and pre-occupancy phases of the building to prevent IAQ problems during this period.

6. Low-Emitting Materials: meet or exceed VOC limits for adhesives, sealants, paints, composite wood products, and carpet systems.

7. Thermal Comfort: comply with thermal comfort standards for building occupants, and install a permanent temperature and humidity monitoring system.

8. Daylight and Views: provide a connection between the indoor spaces and the outdoor environment through the introduction of sunlight and views into the occupied areas of the building.

The opportunity to build a new Convention Center in Buffalo offers a broad array of opportunities to create an environmentally-responsible project. Incorporating the principles of green design, the project can be a benchmark example of "Green Architecture" in the region and the State. Some, or all, of the above guidelines can be incorporated into the project. Some specific examples where green building initiatives that can be incorporated in this project include:

- **Hotel/Convention Center Locational Relationships.** Co-locating the convention center near headquarters and supporting hotels can significantly reduce vehicular travel to and from the facility, thereby reducing air emissions, traffic congestion, and land use for parking.

- **Urban Design.** Sensitive relationship of the facility to its surroundings can make it more pedestrian-friendly, thereby encouraging access by walking, and additionally the patronizing of nearby businesses, including retailers, restaurants, theaters, etc.

- **Daylighting.** The introduction of controlled natural light into exhibition, ballroom and meeting spaces can reduce electrical usage and provide a more pleasing environment in indoor spaces.

- **Natural Ventilation.** Designing the building's spaces and the heating, ventilating, and air conditioning (HVAC) system to take advantage of natural ventilation can reduce duct sizes and motors, and thereby electrical usage.

- **Third-party energy providers and Building Management Systems.** The central plant and Building Management System can be financed and operated on a lease-back basis to the owner. This structure may provide opportunities for innovative energy conservation measures.

- **HVAC Innovations.** Raised-flooring in specialized areas, low-temperature cooling and other techniques can contribute to reducing energy usage for heating and cooling.

- **Ice Storage and Electrical Demand Management.** The feasibility of using ice storage system for the cooling system should be evaluated with the possibility of generating cooling capacity at off-peak hours

- **Fuel Cells and Solar Electric Generation.** New technologies for on-site electrical generation are becoming more refined and less expensive on a first-cost basis, and these two approaches may have application in the new center.

- **Gray Water Recycling.** Reduction of water usage through the provision of a two-pipe supply system in restrooms may have applicability.

- **District Cooling and Heating.** Joint development of heating and cooling capacity with other projects in the area of the convention center may provide an opportunity for energy conservation

- **Building Materials.** Use of locally produced materials, recycled materials, and environmentally responsible products are initiatives that can take place throughout all facets of the building's construction systems.

G Correspondence

G Correspondence

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643

Bernadette Castro
Commissioner

August 18, 2001

Mr. Michael Krasner
Erie County Department of
Environment and Planning
95 Franklin Street
Buffalo, New York 14202
sent this day to 716-858-7248

Dear Mr. Krasner:

Re: **ESDC**
Buffalo Convention Center Alternatives
—Mohawk Site A
—Existing Convention Center Site B
—Waterfront Site C
C/Buffalo, Erie County
01PR3597

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP) for the project noted above. This information was received July 19, 2001 and reviewed under Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law since the project will be assisted in part with funds provided by the Empire State Development Corporation (ESDC). Based on this review, OPRHP is pleased to provide the comments below.

1. There are historic properties that need to be taken into account at the Mohawk Site A and Existing Convention Center Site B locations (see attached eligibility comments). Impacts to these structures need to be considered in the early planning stages, and alternatives that would avoid or reduce impacts to these properties will have to be explored.

2. Additional archeology work is warranted at each of the three sites (see attached archeology comments). Please telephone Robert Kuhn, Ph.D. directly at ext. 3255 with any questions about our archeology comments or recommendations.

3. Please advise us whether any part of the project involves another state or federal agency through funding, licensing, guaranteeing, licensing, permitting or approvals, or if it includes work that will be performed pursuant to federal delegation or mandate; if so, please identify the involvement and provide the name and telephone number of the staff contact.

OPRHP appreciates the opportunity to comment on this material and looks forward to working with you to complete all required reviews. Please telephone me at 518/237-8643, ext. 3276 with any questions you may have. Please use the PR# above to expedite the processing of future submissions for this project.

Sincerely,

Richard Lord

Richard M. Lord
Historic Sites Restoration Coordinator
(Richard.Lord@OPRHP.state.ny.us)

att: structures (2 pp.)
archeology (1 pg.)

cc: Rachel Shatz, ESDC New York
Tom Blanchard, ESDC Buffalo

File Copy

NATIONAL REGISTER EVALUATIONS

Date: 08/03/2001 Staff: C. Ross

Project Ref: 01PR3597 MCD: Buffalo (C) Erie Co.

Based on documentation provided in the Cultural Resource Investigation for the proposed Buffalo Convention Center Alternatives, the following properties are:

Listed and/or eligible for the State and National Register of Historic Places: within the project boundary.

1. **Mohawk Site (A):**

   36 (a.k.a. 38) Broadway, Buehl Block

   321 Ellicott Street, Ferguson Electric Building

   465 Washington Street, Sinclair Building

   501 Washington Street, Gerorge Washington Building/Holling Press Building

   515-517, 523, 525, 529, 535, 537 Main Street; 11 Genesee Street, Buffalo Urban League Building and 504 Washington Street are contributing building in the National Register Eligible 500 Block Historic District.

2. **Existing Buffalo Convention Center Site (B):**

   267 Pearl Street, Commercial Building

3. **Waterfront Site (C):** No Standing Buildings

---

1. **Mohawk Site (A):**

   Not eligible: The remaining properties within the boundary line of the Mohawk Site documented in the report are Not Eligible for listing on the State and National Register of Historic Places.

2. **Existing Buffalo Convention Center Site (B):**

   Not eligible: The remaining properties within the boundary line of the Existing Buffalo Convention documented in the report are Not Eligible for listing on the State and National Register of Historic Places.

3. **<u>Waterfront Site (C):</u>** No Standing Buildings

Please contact Claire Ross at 518-237-8643b ext. 3259 if you have any questions concerning this evaluation. Please be sure to use the project number noted above in all future correspondence.

ARCHEOLOGY COMMENTS

01PR3597

Based upon a review of the Phase IA Cultural Resources Investigation Report for the Buffalo Convention Center Alternatives, the Office of Parks, Recreation and Historic Preservation (OPRHP) concurs with the archeological recommendations of the report. Phase IB archeological investigations should be conducted at whichever alternative is selected for the project.

If you have any questions concerning archeology, please call Robert Kuhn at (518) 237-8643 ext. 3255.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
3817 LUKER ROAD
CORTLAND, NY 13045

May 30, 2001

Mr. Michael F. Kane
Project Planner
Ecology & Environment, Inc.
368 Pleasant View Drive
Lancaster, NY 14086

Dear Mr. Kane:

This responds to your letter of April 10, 2001, requesting information on the presence of endangered or threatened species in the vicinity of the proposed construction of a new Buffalo Convention Center (at one of three sites) in the City of Buffalo, Erie County, New York.

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. In addition, no habitat in the project impact area is currently designated or proposed "critical habitat" in accordance with provisions of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.). Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act is required with the U.S. Fish and Wildlife Service (Service). Should project plans change, or if additional information on listed or proposed species or critical habitat becomes available, this determination may be reconsidered.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the Endangered Species Act. This response does not preclude additional Service comments under other legislation.

You were advised of the above by telephone conversation of May 23, 2001.

For additional information on fish and wildlife resources or State-listed species, we suggest you contact the appropriate New York State Department of Environmental Conservation regional office(s) as shown on the enclosed map, and:

New York State Department of Environmental Conservation
Wildlife Resources Center-Information Services
New York Natural Heritage Program
700 Troy-Schenectady Road
Latham, NY 12110-2400
(518) 783-3932

National Wetlands Inventory (NWI) maps may or may not be available for the project area. However, while the NWI maps are reasonably accurate, they should not be used in lieu of field surveys for determining the presence of wetlands or delineating wetland boundaries for Federal regulatory purposes. Copies of specific NWI maps can be obtained from:

Cornell Institute for Resource Information Systems
302 Rice Hall
Cornell University
Ithaca, NY 14853
(607) 255-4864

Work in certain waters and wetlands of the United States may require a permit from the U.S. Army Corps of Engineers (Corps). If a permit is required, in reviewing the application pursuant to the Fish and Wildlife Coordination Act, the Service may concur, with or without stipulations, or recommend denial of the permit depending upon the potential adverse impacts on fish and wildlife resources associated with project implementation. The need for a Corps permit may be determined by contacting the appropriate Corps office(s) as shown on the enclosed map.

If you require additional information please contact Michael Stoll at (607) 753-9334.

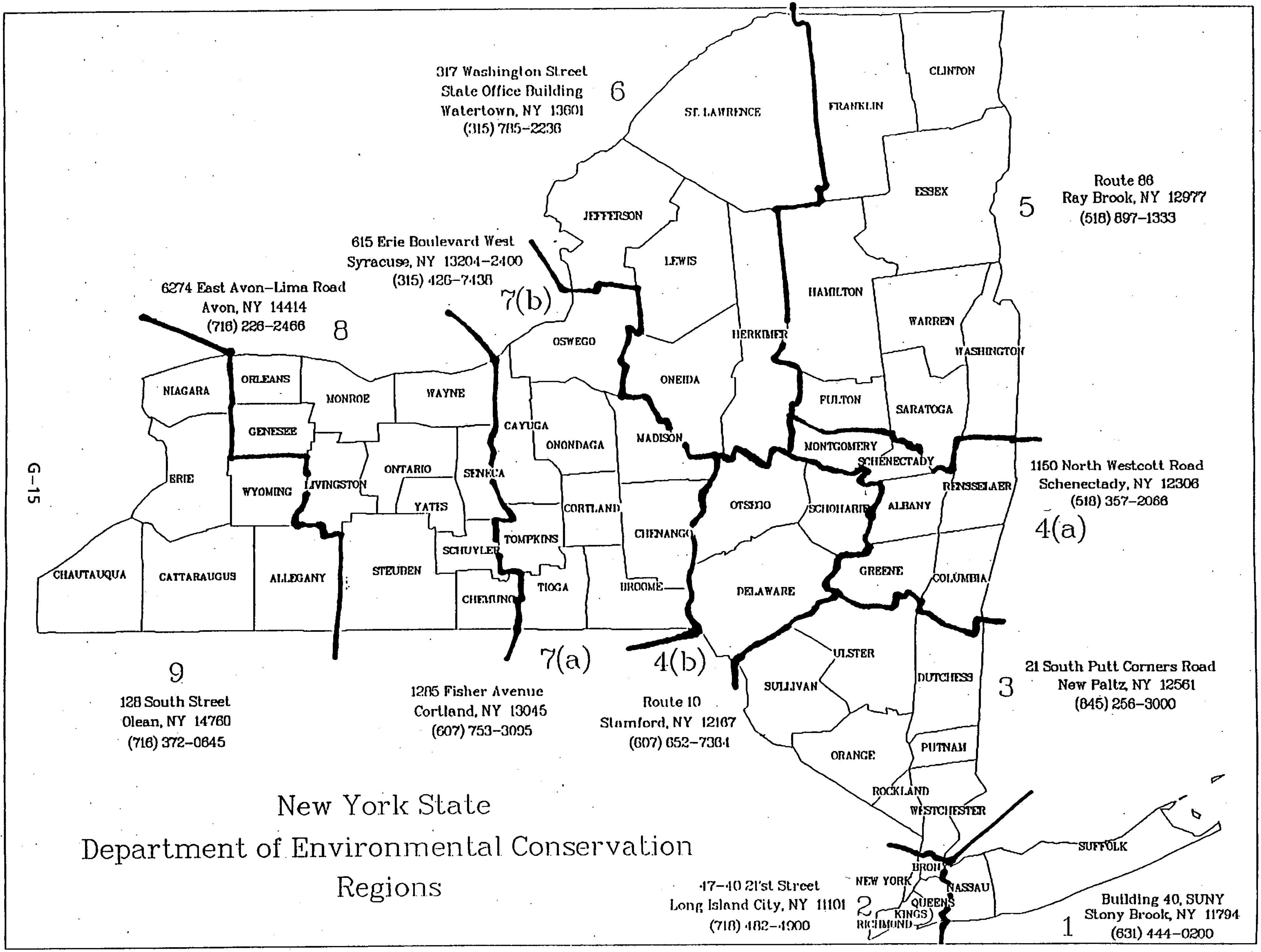
Sincerely,

Mark W. Clough

Acting For
David A. Stilwell
Field Supervisor

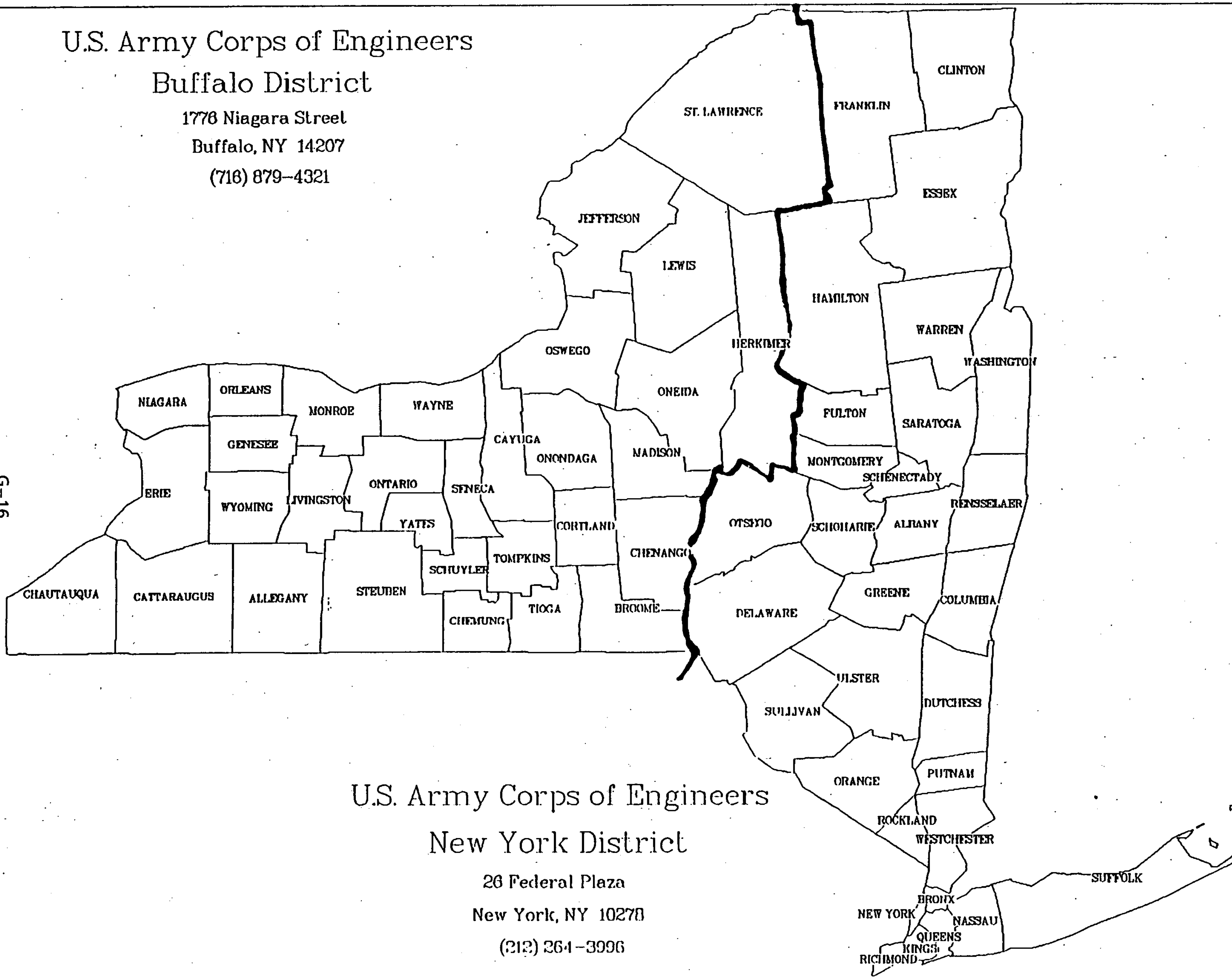
Enclosure

cc: NYSDEC, Olean, NY (Environmental Permits)
NYSDEC, Latham, NY
COE, Buffalo, NY



New York State
Department of Environmental Conservation
Regions

U.S. Army Corps of Engineers
Buffalo District
1776 Niagara Street
Buffalo, NY 14207
(716) 879-4321



U.S. Army Corps of Engineers
New York District
26 Federal Plaza
New York, NY 10278
(212) 264-3996

U.S. Fish and Wildlife Service
New York Field Office
3817 Luker Road
Cortland, NY 13045

To provide a timely response to future requests for endangered species comments in New York, please include the following in future inquiries:

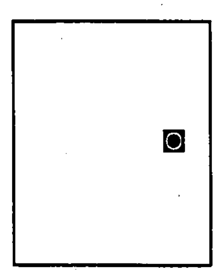
1. A concise brief description of the project/action.

2. Name of the hamlet/village/city/town/county where the project/action occurs.

3. The latitude and longitude of the project/action, i.e.: 42° 13' 28" / 76° 56' 30". If the project/action is linear, you may provide coordinates for both ends or just one near center.

4. A map showing the project/action location. Preferrably the map should be a U.S. Geological Survey quadrangle map (USGS Quad). You need only provide a copy of that portion where the project/action occurs. Please provide the name(s) of the USGS quadrangle.

   If providing only a portion, indicate where the portion would be located on the full quadrangle, i.e.



Providing the information above will assist us in responding to your needs.

If you require additional information please contact Michael Stoll at (607) 753-9334.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
125 MAIN STREET
BUFFALO, NY 14203

BRIAN O. ROWBACK
REGIONAL DIRECTOR

JOSEPH H. BOARDMAN
COMMISSIONER

April 18, 2000

Michael J. Krasner, AICP
Environmental Review Coordinator
Erie County Department of
Environment and Planning, Room 1014
Rath Building, 95 Franklin Street
Buffalo, NY 14202

RE: **SEQR REVIEW**
New Buffalo Convention Center
Main Street, between Huron Street and Broadway
City of Buffalo, Erie County

Dear Mr. Krasner:

We have reviewed the subject development and have the following comments:

__X__ We concur with the Lead Agency designation.

_____ We do not concur with the Lead Agency designation.

_____ Additional information is required before we can complete our initial review of the development.

_____ The proposed development will not have a significant impact on the State Highway System.

__X__ The proposed development may significantly impact the State Highway System. Additional information, including a traffic impact study, will be needed before we can complete our review. Guidelines for this study are attached.

_____ The Developer should contact the local transit authority to evaluate possible transit solutions.

_____ A minimum distance of 5 feet is required along the pavement edge between the terminus of the driveway radius and the nearest corner of the property.

_____ As required by the NYSDOT *Policy and Standards for Entrances to State Highways*, driveways and roadways adjacent to and opposite from the site should be indicated on the site plan.

__X__ A NYSDOT Highway Work Permit will be required for any work within the State Highway Right-of-Way. Additional site engineering review will be done as part of the Highway Work Permit process. This letter does not constitute approval for the purposes of a Highway Work Permit.

_____ A NYSDOT Highway Work Permit will not be required.

__X__ Other comments: We are concerned about the impacts this development may have on state highway facilities, such as Oak Street, and the surrounding intersections. The T.I.S. should detail these potential impacts.

If you have any questions or comments, please contact Joseph D. Buffamonte at 847-3241.

Very truly yours,

BRIAN O. ROWBACK, P.E.
Regional Director

JD Buffamonte for EJN
BY: E. J. NOWICKI, P.E.
Planning & Program Manager

EJN/NGB/lls

December, 1999

GENERAL GUIDELINES FOR TRAFFIC IMPACT STUDIES SUBMITTED TO NYSDOT DURING THE SEQR PROCESS

Prepared by: NYSDOT - Region 5 Planning & Program Management

The Traffic Impact Study (TIS) should be prepared by a qualified individual or firm using the most current methods set forth by the Institute of Transportation Engineers (ITE) (for trip generation), the Transportation Research Board (TRB) (for highway capacity analysis) and the Manual of Uniform Traffic Control Devices (MUTCD). With regard to computer software based on the TRB's *Highway Capacity Manual*, the most recent version of the *Highway Capacity Software*, distributed by the McTrans Center for the Federal Highway Administration, should be used.

The TIS should include the following:

1) A site plan showing existing and proposed access points in relation to the area's transportation facilities, internal street system and parking layouts. Adjacent driveways should be identified on both sides of the street.

2) A description of the existing transportation system within the project area including roadway widths, shoulders, speed limits, estimated actual speeds, horizontal and vertical characteristics, sight distance limitations (if any), etc.

3) A schedule of implementation (project phasing), a detailed description of the development (number, size, type and usage of structures, etc.) and any other information deemed pertinent to the analysis.

4) A list of critical locations included in the study. The impact analysis area should extend as far as the site generated traffic has a significant impact.

5) All necessary machine traffic counts and turning movement counts to properly analyze both daily and peak hour traffic. In addition to typical weekday counts, consideration should be given to acquire weekend data if the nature and location of the development warrants it. Developments where the Saturday peak hour traffic generated by the development is greater than the weekday peak traffic generated should include the Saturday peak hour traffic.

6) Figures or tables presenting trips generated by the project, current trip distribution volumes, projected trip distributions, background (i.e. non-project related) traffic growth and combined (i.e. background plus development) traffic volumes, as well as an explanation of the rationale used in developing them.

7) An analysis of levels of service at all critical locations for <u>existing</u>, <u>background without development</u>, and <u>background with development</u> conditions for the end of each project phase. These analysis should use actual lane designations to represent the existing conditions. Approach Peak Hour Factors should be used for intersection analyses. The Peak 15 minute counts may be used in place of peak hour factors.

8) A copy of Level of Service (LOS) computer analysis sheets and raw count data for all analyses as an appendix to the study. The raw count data for intersections should include Peak Hour Factors, Heavy Vehicle percentages and Right on Red volumes for each approach of all intersections analyzed. A Peak hour factor of 0.9 should be assumed for new approaches, unless data to support another value is submitted. Printouts of the first three sheets of the *Highway Capacity Software* output should be provided for signalized intersection analyses. Copies of the *Highway Capacity Software* files on a 3.5 inch IBM formatted disk may be substituted for the computer print-outs of the analyses.

9) Traffic signal warrant checks at key unsignalized intersections.

10) An accident summary/analysis utilizing the latest three-year accident history from State and/or local accident records. If three years of accidents are unavailable and/or highway geometrics have changed within the latest available three years, a minimum of one year of accident history should be used for an accident analysis. The analysis should include an average accident rate for the subject section of State highway and collision diagrams at all intersections involving State highways.

11) Identification of existing and projected problem areas, from both safety and capacity standpoints. The study should develop and evaluate solutions to these identified problems. Illegal highway usage should be discussed as an existing problem.

12) A description of existing and proposed pedestrian and bicycle access for the proposed development. Consideration should be given to sidewalk installation, designated paths/lanes from the roadway to the development, and bicycle parking facilities.

13) The estimated number of employees for the development.

14) A discussion/analysis of Transit/Transportation Demand Management (TDM) solutions. Attached are several examples of TDM measures which should be evaluated.

15) The name, address and telephone number of a contact person to whom questions regarding the study may be directed.

Traffic Impact Studies submitted for review by the NYSDOT will be checked for both completeness and accuracy. Omissions may cause the review to be delayed or the Sumita to be rejected.

Questions regarding these guidelines may be directed to Eugene J. Nowicki, Regional Planning & Program Management, NYSDOT, 125 Main Street, Buffalo, New York 14203, phone number 716-847-3241 or to James J. Barnack, Regional Traffic Engineering & Safety, at the same address, phone number 716-847-3268. For transit information in *Erie and Niagara Counties,* contact Robert Gower, Superintendent or Route Planning, Niagara Frontier Transportation Authority, at 716-855-7646. For transit information in *Cattaraugus and Chautauqua Counties,* contact Judith Kuba, NYS Department of Transportation, Passenger Transportation Division, Albany, NY, phone number 518-457-8335.

December, 1999

EXAMPLES OF TRANSPORTATION DEMAND MANAGEMENT (TDM) MEASURES

But not limited to

TRANSIT APPLICATIONS

- Park & Ride Lots

  Provision of parking facilities where a person can use the vehicle for the less congested part of travel from home, park the car, and use transit or share a ride for the more congested part of the trip.

- Bike and Ride Facilities

  Provision of bicycle storage facilities at transit stations and/or on transit vehicles to encourage the use of bicycling in conjunction with transit service.

- Regular Route Fixed Transit

  Frequent, convenient, reliable service provided on scheduled fixed routes at a reasonable cost; *this includes expanded service.*

- Subscription Bus Service

  Bus service from a point such as a park and ride lot to a complex of offices arranged and paid for by a group of individuals.

TRANSPORTATION MANAGEMENT APPLICATION

- Employer promotion of flex time to spread out the peak hour.
- Promoting work at home for a part or all of an employee's work week.
- Charging for parking at the employer's site to discourage single vehicle commuting.
- Providing preferential parking for car and van pooling workers.
- Subsidizing transit use by employees to encourage public transit and ride sharing.
- Ride Sharing: Two or more people sharing the same private vehicle. Riders are usually "matched" by destination by a non profit ride share organization.

- Van Pooling: Several people sharing a multi-passenger van which may or may not be provided by an employer or Department of Transportation. Cost arrangements vary.

MAINTENANCE AND PROTECTION OF TRAFFIC BY DEMAND MANAGEMENT

Use of public transit, temporary transportation management association applications, temporary park and ride lots to alleviate construction inducted congestion.

PARKING CONDOMINIUMS

A parking facility located adjacent to or within commuting distance to the primary transportation facility used by a commuter. Individual parking spaces are either sold or leased to the commuter to guarantee them a parking space.

BICYCLE STORAGE FACILITIES

Provisions of bicycle storage facilities in congested downtown areas, suburban centers, private businesses, and other key locations to encourage bicycling as a mode of transportation.

PARKING ORDINANCES

Imposed by municipalities to restrict parking in an urban area. Designed to force employees in the area to reply on mass transit or ride sharing to accomplish their work trips.

New York State Department of Environmental Conservation
Division of Environmental Permits
270 Michigan Ave., Buffalo, New York 14203-2999
Phone: (716) 851-7165 • **FAX:** (716) 851-7168
Website: www.dec.state.ny.us

Environmental Conservation 30 YEARS
John P. Cahill
Commissioner

April 20, 2000

Mr. Michael Krasner
Erie County Department of Environment and Planning
95 Franklin St. - Room 1014
Buffalo, NY 14202

Dear Mr. Krasner:

SEQR LEAD AGENCY DESIGNATION
NEW BUFFALO CONVENTION CENTER
CITY OF BUFFALO, ERIE COUNTY

In response to your March 24, 2000 solicitation, this office has reviewed the proposed project and has not identified any Department permit jurisdiction for your proposal. Therefore, we would be an interested agency for purposes of the State Environmental Quality Review Act. Please be aware of the following environmental issues:

1. If asbestos exists in any of the buildings to be demolished, the protection of workers is regulated by the New York State Department of Labor (716/847-7126) and Occupational Safety and Health Administration (OSHA - 716/684-3891). In addition, the disposal of friable (readily crumbled and brittle) asbestos is regulated by this Department under 6NYCRR Part 360-2.17(p). For more information on the disposal of friable asbestos, please contact Mr. Mark Hans (716/851-7220) of this Department.

2. The Peregrine Falcon (Falco peregrinus), a species listed as "Endangered" by New York State, nests and feeds in downtown Buffalo. A pair of falcons is presently nesting in an artificial nest box on the 18th floor of the Statler Towers, adjacent to the existing convention center. This is the third season in a row that peregrines have nested here.

   The major concern related to this endangered species is potential territorial/nest protection conflicts during construction. Workers (particularly steel and scaffolding workers) and their equipment, specifically cranes, can be jeopardized or be problematic. Peregrines will attempt to drive off intruders in their territory. As the building rises in height during construction, it is very likely that the falcons will swoop at workers that are visible on the outside of the building. Workers should be informed of this and should be provided with protective gear. Appropriate protective gear would be a hard hat and a heavy jacket or vest. Falcons will strike with their talons which are razor sharp. They can inflict a severe blow.

Related problems/issues that must be considered and resolved:

a. The safety of the workers. The attention of workers will be diverted from their work if they are distracted by falcons attempting to strike them. This could result in a fatal fall.

b. The workers may injure the birds in an attempt to drive them off. Peregrine falcons are listed as an Endangered Species in New York State. Obviously, any actions resulting in the injury or death of a peregrine would be a serious offense.

c. Cranes used for construction of high rise buildings can be a hazard to raptors. Raptors will often use the top of a crane as a perch. They prefer to perch on the highest available object. Cranes typically have a lot of grease on the external surfaces for lubricating the cables and pulleys. If a peregrine lands on grease and gets grease on its feathers it may not be able to take off. This results in the bird falling to the ground. Two peregrine falcons were brought down this way in New York City. One was killed and the second was recovered and rehabilitated. When dealing with a nesting pair, the affect of downing a peregrine must be mitigated and would extend to the care of any eggs or chicks that may otherwise be left unattended.

   The Crane lubrication concern can be resolved by shielding the tops of cranes so that greasy pulleys and cables are not exposed. A strong pole with streamers or flagging that will fly in the breeze can be placed at the highest point on the crane. The top of the pole could act as an alternate perch but primarily the streamers will discourage the peregrines from using the crane as a perch.

As this proposed project progresses, the Department will make staff available to work with the builders to reduce any threat of impacts to the peregrines. Key people involved in construction should be made aware of the peregrines and the need for caution. The most critical people to involve once construction begins are the steel and scaffolding workers, who will be working outside and on top of the building.

We concur that the Erie County Department of Public Works should act as SEQR Lead Agency, as the proposal is primarily of regional significance.

Thank you for providing this office the opportunity to review the proposed project. If you have any questions, please feel free to contact me at 716-851-7165.

Respectfully,

Steven J. Doleski

Steven J. Doleski
Regional Permit Administrator

DSD/mlt
cc: Mr. Mark Kandel, NYSDEC Division of Wildlife

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
Wildlife Resources Center – New York Natural Heritage Program
700 Troy-Schenectady Road, Latham, New York 12110-2400
Phone: (518) 783-3932 FAX: (518) 783-3916

John P. Cahill
Commissioner

May 15, 2001

Michael Kane
Ecology and Environment Inc
Buffalo Corporate Center
368 Pleasant View Drive
Lancaster, NY 14086

Dear Mr. Kane:

In response to your recent request, we have reviewed the New York Natural Heritage Program databases with respect to the proposed new Buffalo Convention Center, two project sites under consideration, areas as indicated on the map you provided. The enclosed printout applies to the 11 acre Mohawk Site and any renovations to the Existing Convention Center Site.

Enclosed is a report of rare or state-listed animals and plants, significant natural communities, and other significant habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site.
This information is considered sensitive and may not be released to the public without permission from the New York Natural Heritage Program.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental impact assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

This response applies only to known occurrences of rare or state-listed animals and plants, of significant natural communities, and of other significant habitats. For information regarding regulated areas or permits that may be required under state law (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the enclosed address.

Sincerely,
Heidi Krahling jp
Heidi J. Krahling, Information Services
NY Natural Heritage Program

Enc.
cc: Reg. 9, Wildlife Mgr.
Peter Nye, Endangered Species Unit, Delmar

PLEASE NOTE:
As of June 1, 2001, our new address will be:

NYS DEC - Information Services
NY Natural Heritage Program
625 Broadway, 5th floor
Albany, NY 12233-4754 (518) 402-8935

Natural Heritage Map of Rare Species and Ecological Communities

Prepared May 14, 2001 by NY Natural Heritage Program, NYS DEC, Latham, New York

PROJECT SITES

New York Natural Heritage Progam Database Records*

Animal

Plant

Community

Other

Scale: 1:24000

0.5 0 0.5 Miles

N

*** The locations that are displayed are considered sensitive and cannot be released to the public. We do not provide map locations for all records. Please see report for details.**

Natural Heritage Report on Rare Species and Ecological Communities

Prepared 14 May 2001 by NY Natural Heritage Program, NYS DEC, Latham, New York

This report contains SENSITIVE information that should be treated in a sensitive manner -- Please see cover letter. Refer to the Users' Guide for explanations of codes, ranks, and fields. We do not always provide maps of locations of species most vulnerable to disturbance, nor of some records whose locations and/or extents are not precisely known or are too large to display.

* County ** Town Scientific Name, COMMON NAME, & Group Name	NY Legal Status, Heritage Ranks, & Federal Status	EO Rank, Last Seen, & Acreage	Detailed Location	General Habitat and Quality	Office Use
* ERIE					
** CITY OF BUFFALO					
Falco peregrinus PEREGRINE FALCON Bird	ENDANGERED G4; S3B,SZN	E 1998-09-25 0.00	BUFFALO CITY OF BUFFALO. BIRDS HAVE NESTED ON BOTH THE STATLER BUILDING AND CITY HALL. THE STATLER BUILDING IS ON THE CORNER OF FRANKLIN STREET AND WEST GENESSEE STREET. CITY HALL IS ON THE WEST SIDE OF NIAGARA SQUARE. PEREGRINES ALSO USE OTHER BUILDINGS IN	TALL BUILDINGS IN DOWNTOWN BUFFALO. STATLER BUILDING HAS A NEST BOX.	4207888 S ESU

1 Records Processed

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF ENVIRONMENTAL PERMITS REGIONAL OFFICES

REGION	COUNTIES	NAME	ADDRESS AND PHONE NO.
Region 1	Nassau Suffolk	John Pavacic Permit Administrator	Loop Road, Bldg. 40 SUNY Stony Brook, NY 11790-2356 (516) 444-0365
Region 2	New York City	John Cryan (Act) Permit Administrator	Hunters Point Plaza 4740 21st Street Long Island City, NY 11101-5407 (718) 482-4997
Region 3	Dutchess Orange Putnam Rockland, Sullivan Ulster, Westchester	Margaret Duke Permit Administrator	21 South Putt Corners Road New Paltz, NY 12561-1696 (914) 256-3059
Region 4	Albany Columbia Delaware Greene, Montgomery, Otsego Rensselaer, Schenectady, Schoharie	William J. Clarke Permit Administrator	1150 N. Westcott Road Schenectady, NY 12306-2014 (518) 357-2234
Region 5	Clinton Essex Franklin Fulton, Hamilton Saratoga, Warren, Washington	Richard Wild Permit Administrator	Route 86 Ray Brook, NY 12977 (518) 897-1234
Region 6	Herkimer Jefferson Lewis Oneida, St. Lawrence	Brian Fenlon (Act) Permit Administrator	State Office Building 317 Washington Street Watertown, NY 13601 (315) 785-2246
Region 7	Broome Cayuga Chenango Cortland, Madison, Onondaga Oswego, Tioga, Tompkins	Ralph Manna, Jr. Permit Administrator	615 Erie Blvd. West Syracuse, NY 13204-2400 (315) 426-7439
Region 8	Chemung Genesee Livingston Monroe, Ontario, Orleans Schuyler, Seneca, Steuben Wayne, Yates	Peter Lent (Act) Permit Administrator	6274 East Avon-Lima Road Avon, NY 14414 (716) 226-2466
Region 9	Allegany Cattaraugus Chautauqua Erie, Niagara, Wyoming	Steven Doleski Permit Administrator	270 Michigan Avenue Buffalo, NY 14203-2999 (716) 851-7165

1/200/

USERS GUIDE TO NY NATURAL HERITAGE DATA

New York Natural Heritage Program, 700 Troy-Schenectady Road, Latham NY 12110-2400 phone: (518) 783-3932

NATURAL HERITAGE PROGRAM: The Natural Heritage Program is an ongoing, systematic, scientific inventory whose goal is to compile and maintain data on the rare plants and animals native to New York State, and significant ecological communities. The data provided in the report facilitate sound planning, conservation, and natural resource management and help to conserve the plants, animals and ecological communities that represent New York's natural heritage.

DATA SENSITIVITY: The data provided in the report are ecologically sensitive and should be treated in a sensitive manner. The report is for your in-house use and should not be released, distributed or incorporated in a public document without prior permission from the Natural Heritage Program.

NATURAL HERITAGE REPORTS (may contain any of the following types of data):

COUNTY NAME: County where the occurrence of a rare species or significant ecological community is located.
TOWN NAME: Town where the occurrence of a rare species or significant ecological community is located.
USGS 7 ½' TOPOGRAPHIC MAP: Name of 7.5 minute US Geological Survey (USGS) quadrangle map (scale 1:24,000).

SIZE (acres): Approximate acres occupied by the rare species or significant ecological community at this location. A blank indicates unknown size.
SCIENTIFIC NAME: Scientific name of the occurrence of a rare species or significant ecological community.
COMMON NAME: Common name of the occurrence of a rare species or significant ecological community.
ELEMENT TYPE: Type of element (i.e. plant, animal, significant ecological community, other, etc.)

LAST SEEN: Year rare species or significant ecological community last observed extant at this location.

EO RANK: Comparative evaluation summarizing the quality, condition, viability and defensibility of this occurrence. Use with LAST SEEN.
A-E = Extant: A=excellent, B=good, C=marginal, D=poor, E=extant but with insufficient data to assign a rank of A - D.
F = Failed to find. Did not locate species, but habitat is still there and further field work is justified.
H = Historical. Historical occurrence without any recent field information.
X = Extirpated. Field/other data indicates element/habitat is destroyed and the element no longer exists at this location.
? = Unknown.
Blank = Not assigned.

NEW YORK STATE STATUS (animals): Categories of Endangered and Threatened species are defined in New York State Environmental Conservation Law section 11-0535. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.

E = Endangered Species: any species which meet one of the following criteria:
1) Any native species in imminent danger of extirpation or extinction in New York.
2) Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR 17.11.

T = Threatened Species: any species which meet one of the following criteria:
1) Any native species likely to become an endangered species within the foreseeable future in NY.
2) Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.

SC = Special Concern Species: those species which are not yet recognized as endangered or threatened, but for which documented concern exists for their continued welfare in New York. Unlike the first two categories, species of special concern receive no additional legal protection under Environmental Conservation Law section 11-0535 (Endangered and Threatened Species).

P = Protected Wildlife (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of wildlife.

U = Unprotected (defined in Environmental Conservation Law section 11-0103): the species may be taken at any time without limit; however a license to take may be required.

G = Game (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Environmental Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.

NEW YORK STATE STATUS (plants): The following categories are defined in regulation 6NYCRR part 193.3 and apply to NYS Environmental Conservation Law section 9-1503.

E = Endangered Species: listed species are those with:
1) 5 or fewer extant sites, or
2) fewer than 1,000 individuals, or
3) restricted to fewer than 4 U.S.G.S. 7 ½ minute topographical maps, or
4) species listed as endangered by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

T = Threatened: listed species are those with:
1) 6 to fewer than 20 extant sites, or
2) 1,000 to fewer than 3,000 individuals, or
3) restricted to not less than 4 or more than 7 U.S.G.S. 7 and ½ minute topographical maps, or
4) listed as threatened by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

R = Rare: listed species have:
1) 20 to 35 extant sites, or
2) 3,000 to 5,000 individuals statewide.

continued on next page

V = Exploitably vulnerable: listed species are likely to become threatened in the near future throughout all or a significant portion of their range within the state if causal factors continue unchecked.
U = Unprotected; no state status.

NEW YORK STATE STATUS (communities): At this time there are no categories defined for communities.

FEDERAL STATUS (plants and animals): The categories of federal status are defined by the United States Department of the Interior as part of the 1974 Endangered Species Act (see Code of Federal Regulations 50 CFR 17). The species listed under this law are enumerated in the Federal Register vol. 50, no. 188, pp. 39526 - 39527.

(blank) = No Federal Endangered Species Act status.
LE = The element is formally listed as endangered.
LT = The element is formally listed as threatened.
E/SA = The element is treated as endangered because of similarity of appearance to other endangered species or subspecies.
PE = The element is proposed as endangered.
PT = The element is proposed as threatened.
C= The element is a candidate for listing.
(LE) = If the element is a full species, all subspecies or varieties are listed as endangered; if the element is a subspecies, the full species is listed as endangered.
(LE-LT) = The species is formally listed as endangered in part of its range, and as threatened in the other part; or, one or more subspecies or varieties is listed as endangered, and the others are listed as threatened.
(LT-C) = The species is formally listed as threatened in part of its range, and as a candidate for listing in the other part; or, one or more subspecies or varieties is listed as threatened, and the others are candidates for listing.
(LT-(T/SA)) = One or more subspecies or populations of the species is formally listed as threatened, and the others are treated as threatened because of similarity of appearance to the listed threatened subspecies or populations.
(PS) = Partial status: the species is listed in parts of its range and not in others; or, one or more subspecies or varieties is listed, while the others are not listed.

GLOBAL AND STATE RANKS (animals, plants, ecological communities and others): Each element has a global and state rank as determined by the NY Natural Heritage Program. These ranks carry no legal weight. The global rank reflects the rarity of the element throughout the world and the state rank reflects the rarity within New York State. Infraspecific taxa are also assigned a taxon rank to reflect the infraspecific taxon's rank throughout the world. ? = Indicates a question exists about the rank. Range ranks, e.g. S1S2, indicate not enough information is available to distinguish between two ranks.

<u>GLOBAL RANK:</u>
G1 = Critically imperiled globally because of extreme rarity (5 or fewer occurrences), or very few remaining acres, or miles of stream) or especially vulnerable to extinction because of some factor of its biology.
G2 = Imperiled globally because of rarity (6 - 20 occurrences, or few remaining acres, or miles of stream) or very vulnerable to extinction throughout its range because of other factors.
G3 = Either rare and local throughout its range (21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range (e.g. a physiographic region), or vulnerable to extinction throughout its range because of other factors.
G4 = Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.
G5 = Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.
GH = Historically known, with the expectation that it might be rediscovered.
GX = Species believed to be extinct.

<u>STATE RANK:</u>
S1 = Typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or some factor of its biology making it especially vulnerable in New York State.
S2 = Typically 6 to 20 occurrences, few remaining individuals, acres, or miles of stream, or factors demonstrably making it very vulnerable in New York State.
S3 = Typically 21 to 100 occurrences, limited acreage, or miles of stream in New York State.
S4 = Apparently secure in New York State.
S5 = Demonstrably secure in New York State.
SH = Historically known from New York State, but not seen in the past 15 years.
SX = Apparently extirpated from New York State.
SZ = Present in New York State only as a transient migrant.

SxB and SxN, where Sx is one of the codes above, are used for migratory animals, and refer to the rarity within New York State of the breeding (B) populations and the non-breeding populations (N), respectively, of the species.

TAXON (T) RANK: The T-ranks (T1 - T5) are defined the same way as the Global ranks (G1 - G5), but the T-rank refers only to the rarity of the subspecific taxon.
T1 through T5 = See Global Rank definitions above.
Q = Indicates a question exists whether or not the taxon is a good taxonomic entity.

OFFICE USE: Information for use by the Natural Heritage Program.

c:\datareq\system\userguid.new

Please detach and complete this page, and return it to the Contact Person

Robert W. Gower	NFTA	4-14-00
Completed by (name of agency representative)	Agency	Date

(PLEASE CHECK ALL THAT APPLY and PROVIDE AN EXPLANATION AS APPROPRIATE)

[ ] We have no substantial environmental concerns about the proposed project.

[ ] Please remove us from the mailing list of notices about this project.

[X] We have environmental concerns about the project. (Please list concerns on another sheet, and whether they will occur during or after construction/implementation; the estimated severity of the impact; whether they are direct or secondary impacts, and how you suggest the impact can be minimized).

[X] We plan to attend the DEIS scoping session for the Environmental Impact Statement. Please indicate below the most convenient time for a weekday scoping session (morning/afternoon/evening).

[ ] Our agency/group has no authority over or interest in the project and should be removed from the Involved Agency or Interested Agency list.

[ ] Our agency has these additional approvals/jurisdictions besides those listed on page 2:

If you are a SEQR Involved Agency, and you **DO NOT** agree that the ECDPW should be Lead Agency, explain below or in a letter why you should be Lead Agency:

Mail to: **Michael J. Krasner, AICP**
Environmental Review Coordinator
Erie County Department of Environment and Planning
95 Franklin Street, Room 1014
Buffalo, NY 14202
by: April 24, 2000

SEQR/REF

Date: 4/14/00

To: Michael Krasner, Environmental Reiview Coordinator. Erie County Dept. of Environment and Planning

Cc: Deborah Wathan Finn, Director, Surface Transp.

From: Robert W. Gower

RE: New Buffalo Convention Center Project

The NFTA has two primary comments on this project. First we are concerned about disruption to transit service during construction. Coordination should take place to insure that disruption is minimized.

Secondly, the NFTA has serious concerns with Alternative site C. Selection of this site would require the relocation of the Metropolitan Transportation Center , NFTA's Operations Control Center at 93 Oak Street, and the major Metrobus terminus and turnaround in downtown Buffalo. Significant community investment has been made in these facilities and we are embarking on a major renovation and possible expansion of the MTC.

The NFTA looks forward to participating in environmental review process for this project.

rwg

Niagara Mohawk

Dennis G. Gleason
Regional Manager - Frontier Region

Phone: 716.857.4292
Fax: 716.842.0105
e-mail: gleasond@NiagaraMohawk.com

April 20, 2000

Mr. Michael J. Krasner, AICP
Environmental Review Coordinator
Erie County Dept. of Environmental Planning
95 Franklin St., Room 1014
Buffalo, NY 14202

SUBJECT: New Buffalo Convention Center
Project Number: C617-00-193

Dear Mr. Krasner:

The Niagara Mohawk Power Corporation (NMPC) has reviewed the State Environmental Quality Review (SEQR) Solicitation for Lead Agency Status document dated March 24, 2000. As an adjacent landowner and the provider of electric service to the proposed facility, NMPC has great interest in the project.

At this early stage it is difficult to provide detailed comments. It is expected that more detailed comments will be provided by NMPC as the SEQR process moves forward. However, we do have some preliminary comments as set forth below in addition to the enclosed SEQR Referral form.

1. NMPC has no objection to the Erie County Department of Public Works serving as the lead agency for this project.

2. NMPC requests that it continue to be included on the project mailing list as an interested agency/party. Future mailings should be sent to:

   Mr. Jeffrey M. Eddy
   Manager, Regional Design
   Niagara Mohawk Power Corporation
   535 Washington Street
   Buffalo, NY 14203
   Telephone: (716) 857-4180

3. NMPC would be interested in attending the DEIS scoping session and suggests that the session be held in mid-morning or early afternoon.

4. Based on the preliminary information available for review, we have identified the following potential concerns associated with the proposed project:

535 Washington Street, Buffalo, New York 14203-1497 • www.NiagaraMohawk.com

- Impacts on existing underground electric facilities – NMPC has a major 230,000 volt electric line beneath Huron and Ellicott Streets that will have to be protected, or more likely relocated, if the proposed project is implemented. This circuit is a significant link in our downtown service network. Relocation would be expensive and the cost would be the responsibility of the project sponsor. Other lower voltage underground electric facilities within the project area may also be impacted and again, costs incurred for protection or relocation would be the responsibility of the project sponsor. The DEIS should fully evaluate these impacts.

- Real estate values – NMPC is concerned that the proposed project may have adverse impacts on surrounding property values, including our adjacent office building. The DEIS should evaluate these impacts. We also note that our Oak Street employee parking lot is marked as a "future development" area. If future development does occur in this area, it would have a major adverse impact on the value of our office complex. Additionally we would require suitable alternate parking arrangements for our employees.

- Aesthetics – In addition to the NMPC building, we note a number of historic or potentially historic structures near or adjacent to the proposed project. NMPC recommends that the design of the proposed convention center consider the project's impact on the downtown view shed. At a minimum, the DEIS should include a thorough visual analysis of the project including views from sensitive vantage points in the area.

- Construction – Construction impacts such as noise, dust, site runoff, traffic, engine fumes, etc., should be fully discussed in the DEIS and strictly controlled to minimize impacts on adjacent businesses.

- Archaeology – It is noted in the SEQR Full Environmental Assessment Form that the proposed project site may be an archaeologically sensitive area. The discovery of artifacts on a project site can lead to further, more detailed studies, alternation of the project design, and costly mitigation. We would recommend that the proposed site and all reasonable alternate sites be archaeologically screened before a final decision on site preference is made.

Niagara Mohawk supports economic development efforts such as the proposed Buffalo Convention Center and looks forward to continued participation with Erie County as the SEQR DEIS process moves forward. As noted above, please direct all future communications to Mr. Eddy who will coordinate the necessary NMPC DEIS and project review efforts.

Thank you for your consideration of our initial comments.

Sincerely,

Dennis G. Gleason
Regional Manager, Frontier Region

cc: Jeffrey M. Eddy, NMPC

Please detach and complete this page, and return it to the Contact Person

Jeffrey M. Eddy, Manager, Regional Design	Niagara Mohawk Power Corporation	4/20/00
Completed by (name of agency representative)	Agency	Date

(PLEASE CHECK ALL THAT APPLY and PROVIDE AN EXPLANATION AS APPROPRIATE)

[ ] We have no substantial environmental concerns about the proposed project.

[ ] Please remove us from the mailing list of notices about this project.

[X] We have environmental concerns about the project. (Please list concerns on another sheet, and whether they will occur during or after construction/implementation; the estimated severity of the impact; whether they are direct or secondary impacts, and how you suggest the impact can be minimized). (See attached letter)

[X] We plan to attend the DEIS scoping session for the Environmental Impact Statement. Please indicate below the most convenient time for a weekday scoping session (morning/afternoon/evening). Late morning or early afternoon meetings would be most convenient.

[ ] Our agency/group has no authority over or interest in the project and should be removed from the Involved Agency or Interested Agency list.

[ ] Our agency has these additional approvals/jurisdictions besides those listed on page 2:

N/A

If you are a SEQR Involved Agency, and you **DO NOT** agree that the ECDPW should be Lead Agency, explain below or in a letter why you should be Lead Agency:

N/A

Mail to: **Michael J. Krasner, AICP**
Environmental Review Coordinator
Erie County Department of Environment and Planning
95 Franklin Street, Room 1014
Buffalo, NY 14202
by: April 24, 2000

SEQR/REF

Niagara Mohawk

May 23, 2000

Michael J. Krasner, AICP
Environmental Review Coordinator
Erie County Dept. of Environmental Planning
95 Franklin St., Room 1014
Buffalo, NY 14202

Re: New Buffalo Convention Center
Project No. C617-00-193

Dear Mr. Krasner:

Thanks to you and Commissioner Rubin for meeting with us to discuss our concerns with the proposed sites for the new Convention Center and their impact on Niagara Mohawk Power Corporation's (NMPC) facilities and infrastructure. NMPC supports the County and City's efforts in economic development and pledges participation in the process for the proposed Convention Center.

NMPC's initial concern is the impact on underground electric facilities throughout the project areas. Of note is a major 230,000 volt electric line that runs under Ellicott and Huron Streets to our Elm Street Station. It is our understanding that under the original proposal for Site A, Ellicott Street will be left open by bridging the street. Attached is a map showing the route of these cables. Other concerns as the process progresses involve the effects on real estate valuation, construction, aesthetics, and archaeology. We ask that NMPC be involved early on in the process once a consultant is selected.

Again, thank you for your time, and we look forward to continued participation in the Convention Center project.

Sincerely,

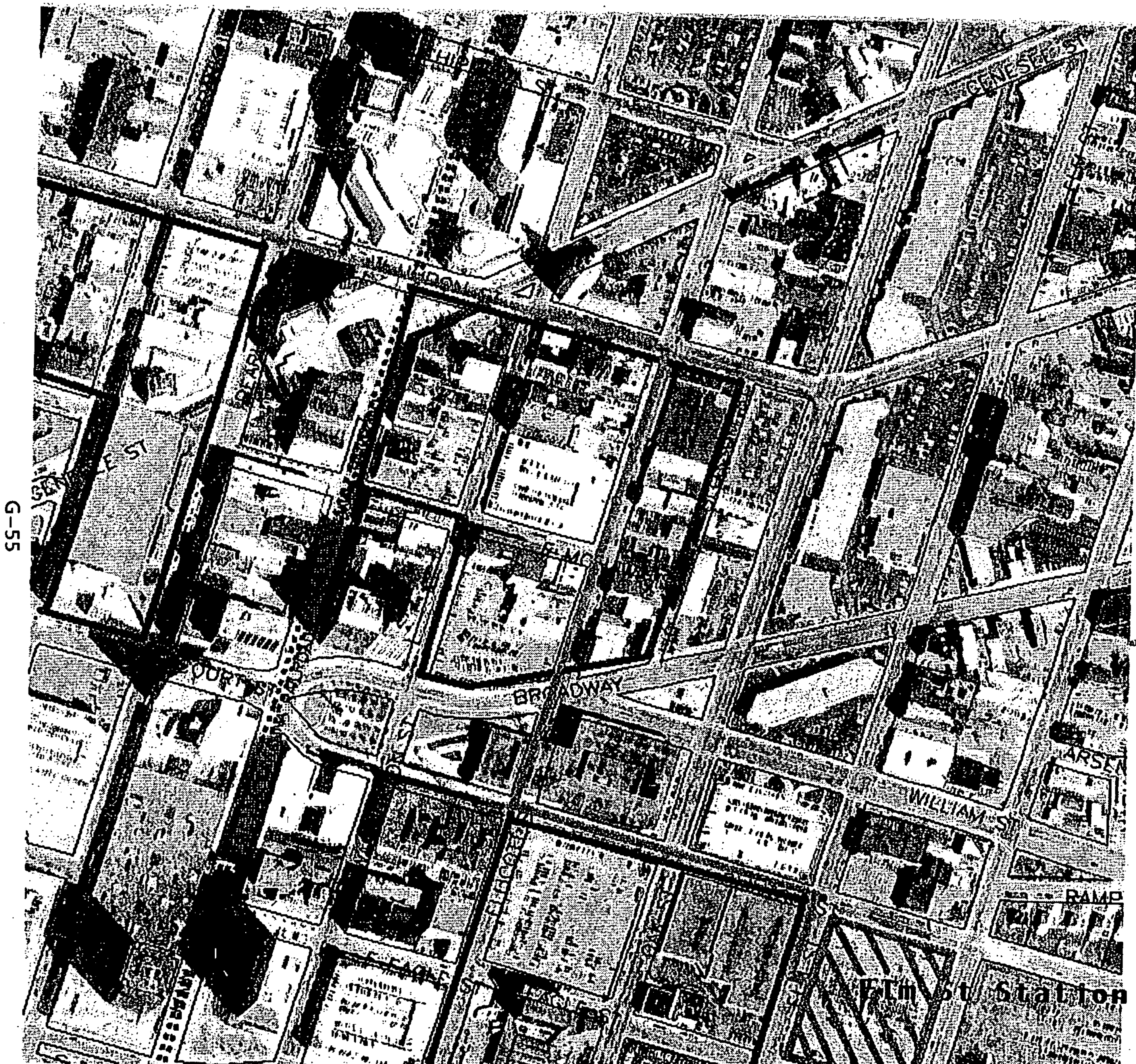
NIAGARA MOHAWK POWER CORP.

Jeffrey M. Eddy

Jeffrey M. Eddy, Manager
Regional Design, Frontier Region

JME/djk
cc: Dennis Gleason, NMPC
Thomas Ward, NMPC

535 Washington Street, Buffalo, New York 14203-1497 • www.NiagaraMohawk.com



Proposed Sites

NMPC 230kv Line